Leu Ile Leu Xaa Lys Lys Ile Tyr Glu Glu Lys Lys Lys 85 90

<210> 549

<211> 379 <212> PRT

<213> Homo sapiens

<400> 549

Val Ala Cys Cys Val Arg Ile Pro Gly Pro Pro Arg Arg Ser Gly Pro 1 5 10 15

Ala Met Ala Val Thr Ile Thr Leu Lys Thr Leu Gln Gln Gln Thr Phe 20 25 30

Lys Ile Arg Met Glu Pro Asp Glu Thr Val Lys Val Leu Lys Glu Lys 35 40 45

Ile Glu Ala Glu Lys Gly Arg Asp Ala Phe Pro Val Ala Gly Gln Lys 50 60

Leu Ile Tyr Ala Gly Lys Ile Leu Ser Asp Asp Val Pro Ile Arg Asp 65 70 75 80

Tyr	Arg	Ile	Asp	61u 85		Asn	Phe	Val	Val 90		Met	Val	Thr	Lys 95	Thr
Lys	Ala	Gly	Gln 100		Thr	Ser	Ala	Pro 105		Glu	Ala	Ser	Pro 110	Thr	Ala
Ala	Pro	Glu 115		Ser	Thr	Ser	Phe 120	Pro	Pro	Ala	Pro	Thr 125		Gly	Met
Ser	His 130		Pro	Pro	Ala	Ala 135	Arg	Glu	Asp	Lys	Ser 140	Pro	Ser	Glu	Glu
ser 145		Pro	Thr	Thr	Ser 150	Pro	Glu	Ser	Val	Ser 155	•	. Ser	Val	Pro	Ser 160
Ser	Gly	Ser	Ser	Gly 165	Arg	Glu	Glu	Asp	Ala 170	Ala	Ser	Thr	Leu	Val 175	Thr
Gly	Ser	Glu	Туг 180	Glu	Thr	Met	Leu	Thr 185	Glu	Ile	Met	Ser	Met 190	Gly	Tyr
Glu	Arg	Glu 195	Arg	Val	Val	Ala	Ala 200	Leu	Arg	Ala	Ser	Tyr 205	Asn	Asn	Pro
His	Arg 210	Ala	Val	Glu	Tyr	Leu 215	Leu	Thr	Gly	Ile	Pro 220	Gly	Ser	Pro	Glu
Pro 225	Glu	His	Gly	Ser	Val 230	Gln	Glu	Ser	Gln	Val 235	Ser	Glu	Gln	Pro	Ala 240
Thr	Glu	Ala	Gly	Glu 245	Asn	Pro	Leu	Glu	Phe 250	Leu	Arg	Asp	Gln	Pro 255	Gln
Phe	Gln	Asn	Met 260	Arg	Gln	Val	Ile	Gln 265	Gln	Asn	Pro	Ala	Leu 270	Leu	Pro
Ala	Leu	Leu 275	Gln	Gln	Leu	Gly	Gln 280	Glu	Asn	Pro	Gln	Leu 285	Leu	Gln	Gln
Ile	Ser 290	Arg	His	Gln	Glu	Gln 295	Phe	Ile	Gln	Met	100 300	Asn	Glu	Pro	Pro
Gly 305	Glu	Leu	Ala	Asp	Ile 310	Ser	Asp	Val	Glu	Gly 315	Glu	Val	Gly	Ala	Ile 320
Gly	Glu	Glu	Ala	Pro 325	Gln	Met	Asn	Tyr	11e 330	Gln	Val	Thr	Pro	Gln 335	Glu
Lys	Glu	Ala	Ile 340	Glu	Arg	Leu	Lys	Ala 345	Leu	Gly	Phe	Pro	Glu 350	Ser	Leu

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Val Ile Gln Ala Tyr Phe Ala Cys Glu Lys Asn Glu Asn Leu Ala Ala
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 Asn Phe Leu Leu Ser Gln Asn Phe Asp Asp Glu
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Pro Ser Ala Leu Val Pro Ser Val Thr Glu Tyr Arg Leu Asp Gly His
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504

Thr	Ile	Ser 35		Leu	Ser	Arg	Ser 40	Ser	Arg	Gly	Glu	Leu 45	Ile	Pro	Ile
Ser	Pro 50	Ser	Thr	Glu	Val	Gly 55	Gly	Ser	Gly	Ile	Gly 60	Thr	Pro	Pro	Sei
Val 65	Leu	Lys	Arg	Gln	Arg 70	Lys	Arg	Arg	Val	Ala 75	Leu	Ser	Pro	Val	Th:
Glu	Asn	Ser	Thr	Ser 85	Leu	Ser	Phe	Leu	Asp 90	Ser	Cys	Asn	Ser	Leu 95	Thi
Pro	Lys	Ser	Thr 100	Pro	Val	Lys	Thr	Leu 105	Pro	Phe	Ser	Pro	Ser 110	Gln	Phe
		115					120				Leu	125			
	130					135					Val 140				
145					150					155	His				160
				165					170		Pro			175	
			180					185			Leu		190		
		195					200		_		Val	205			
	210					215					Arg 220				
225					230					235	Lys				240
				245					250		Lys			255	
Fhr	Leu	Pro	Xaa 260	Xaa	Leu	Ser	Leu	Ala 265	Thr	Xaa	Ala	Pro	Cys 270	Lys	Xaa

Phe Gln Pro 275

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505

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155

Phe

<210> 552

<211> 405

<212> PRT

<213> Homo sapiens

. 150

<400> 552

Pro 1		Val	. Arg	Arg 5		Ala	Arg	Gly	Arg 10	_	Val	Arg	Pro	Ala 15	Gly
Gly	Pro	Val	Arg 20		Gly	Ala	Ala	Val 25	-	Gly	Ala	Leu	Arg 30		Ala
Ser	Leu	Gly 35	His	Gly	Ala	Ala	Ala 40	_	Ala	Gly	Arg	Pro 45		Cys	Val
Arg	His 50		Glu	Pro	Val	Cys 55	Gly	Ser	Asp	Ala	Asn 60	Thr	Tyr	Ala	Asn
Leu 65		Gln	Leu	Arg	Ala 70	Ala	Ser	Arg	Arg	Ser 75	Glu	Arg	Leu	His	Arg 80
Pro	Pro	Val	Ile	Val 85	Leu	Gln	Arg	Gly	Ala 90	Cys	Gly	Gln	Gly	Gln 95	Glu
			Ser 100				-	105					110		
		115	Ala				120					125			
	130		Lys			135					140				
145			Asp		150					155					160
			Val	165					170					175	
			180					185					190		
		195	Gly				200					205			
	210		Gly			215				_	220				
225			Val		230					235					240
			Gly	245					250					255	
Ala	Ile	Ile	Asn 260	Tyr	Gly	Asn	Ser	Gly 265	Gly	Pro	Leu	Val	Asn 270	Leu	Asp

Gly	Glu	Val 275		Gly	Ile	Asn	Thr 280		Lys	Val	Thr	Ala 285	Gly	Ile	Se
Phe	Ala 290		Pro	Ser	Asp	Lys 295		Lys	Lys	Phe	Leu 300	Thr	Glu	Ser	His
Asp 305	Arg	Gln	Ala	Lys	Gly 310	Lys	Ala	Ile	Thr	Lys 315	Lys	Lys	Tyr	Ile	G1 ₅ 320
Ile	Arg	Met	Met	Ser 325	Leu	Thr	Ser	Ser	Lys 330		Lys	Glu	Leu	Lys 335	Asp
Arg	His	Arg	Asp 340	Phe	Pro	Asp	Val	1le 345		Gly	Ala	Tyr	Ile 350	Ile	Glu
Val	Ile	Pro 355	Asp	Thr	Pro	Ala	Glu 360	Ala	Gly	Gly	Leu	Lys 365	Glu	Asn	Asp
Val	Ile 370	Ile	Ser	Ile	Asn	Gly 375	Gln	Ser	Val	Val	Ser 380	Ala	Asn	Asp	Va]
Ser 385	Asp	Val	Ile	Lys	Arg 390	Glu	Ser	Thr	Leu	Asn 395	Met	Val	Val	Arg	Arg 400
Val	Met	Lys	Ile	Ser 405											
)> 55 .> 10														
	!> PF !> Ho		sapie	ens											
<400	> 55	3													
Ala 1	Gln	Glu	Asn	Glu 5	Glu	Met	Glu	Gln	Pro 10	Met	Gln	Asn	Gly	Glu 15	Glu
Asp	Arg	Pro	Leu 20	Gly	Gly	Gly	Glu	Gly 25	His	Gln	Pro	Ala	Gly 30	Asn	Arg
Arg	Gly	Gln 35	Ala	Arg	Arg	Leu	Ala 40	Pro	Asn	Phe	Arg	Trp 45	Ala	Ile	Pro
Asn	Arg 50	Gln	Ile	Asn	Asp	Gly 55	Met	Gly	Gly	Asp	Gly 60	Asp	Asp	Met	Glu
1le 65	Phe	Met	Glu	Glu	Met 70	Arg	Glu	Ile	Arg	Arg 75	Lys	Leu	Arg	Glu	Leu 80

Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn His

508

85 90 95

His Asp His His Asp Glu Phe Cys Leu Met Pro

<210> 554

<211> 229

<212> PRT

<213> Homo sapiens

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Gly Leu Ser Ala Glu Ser Thr Xaa Thr Ser Thr Met Pro Met Xaa Leu 1 5 10 15

Gly Tyr Trp Xaa Ile Arg Gly Leu Ala His Xaa Ile Arg Leu Leu 20 25 30

Glu Tyr Thr Asp Ser Ser Tyr Glu Glu Lys Lys Tyr Thr Met Gly Asp
35 40

Ala Pro Asp Tyr Asp Arg Ser Gln Trp Leu Asn Glu Lys Phe Lys Leu 50 60

Gly Leu Asp Phe Pro Asn Leu Pro Tyr Leu Ile Asp Gly Xaa His Lys

509

65 70 80 75 Ile Thr Gln Ser Asn Ala Ile Leu Arg Tyr Ile Ala Arg Lys His Asn 90 Leu Cys Gly Glu Ser Glu Lys Glu Gln Ile Arg Glu Asp Ile Leu Glu 105 Asn Gln Phe Met Asp Ser Arg Met Gln Leu Ala Lys Leu Cys Tyr Asp Pro Asp Phe Glu Lys Leu Lys Pro Glu Tyr Leu Gln Ala Leu Pro Glu 130 135 Met Leu Lys Leu Tyr Ser Gln Phe Leu Gly Lys Gln Pro Trp Phe Leu 155 Gly Asp Lys Ile Thr Phe Val Asp Phe Ile Ala Tyr Asp Val Leu Glu 170 Arg Asn Gln Val Phe Glu Pro Ser Cys Leu Asp Ala Phe Pro Asn Leu 180 185 Lys Asp Phe Ile Ser Arg Phe Glu Gly Leu Glu Lys Ile Ser Ala Tyr Met Lys Ser Ser Arg Phe Leu Pro Arg Pro Val Phe Thr Lys Met Ala 210 215 Val Trp Gly Asn Lys 225 <210> 555 <211> 106 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (59) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (60) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE

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510

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Arg Val Thr Ile Glu Leu Glu Thr Phe Tyr Ser Gly Arg Leu Gly Ser

Phe Trp Trp Asp Ser Val Gly Glu Arg Glu Glu Gly Glu Val Gly Gly

511

65 70 75 80

Leu Leu Pro Phe Arg Thr 85

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<400> 557

Ala Ser Leu Thr Gly Thr Gln Ala Leu Pro Pro Leu Phe Ser Leu Gly
1 5 10 15

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Tyr	HIS	Gin	Ser 20		Trp	Asn	Tyr	Arg 25	_	Glu	Ala	Asp	Val 30	Leu	Glu
Val	Asp	Gln 35		Phe	Asp	Asp	His 40	Asn	Leu	Pro	Cys	Asp 45	Val	Ile	Trp
Leu	Asp 50	Ile	Glu	His	Ala	Asp 55	Gly	Xaa	Arg	туг	Phe 60	Thr	Trp	Asp	Pro
Ser 65	Arg	Phe	Pro	Gln	Pro 70	Xaa	Thr	Met	Leu	Xaa 75	Arg	Leu	Ala	Ser	Lys 80
Arg	Xaa	Lys	Leu	Val 85	Ala	Ile	Val	Asp	Pro 90	His	Ile	Lys	Val	Asp 95	Ser
Gly	Tyr	Arg	Val 100	His	Glu	Glu	Leu	Arg 105	Asn	Leu	Gly	Leu	Туг 110	Val	Lys
Thr	Arg	Asp 115	Gly	Ser	Xaa	Tyr	Xaa 120	Gly	Trp	Cys	Trp	Pro 125	Gly	Ser	Ala
Gly	Tyr 130	Pro	Asp	Phe	Thr	Asn 135	Pro	Thr	Met	Arg	Ala 140	Trp	Trp	Ala	Asn
Met 145	Phe	Ser	Tyr	Asp	Asn 150	Tyr	Glu	Gly	Ser	Ala 155	Pro	Asn	Leu	Phe	Val 160
Trp	Asn	Asp	Met	Asn 165	Glu	Pro	Ser	Val	Phe 170	Asn	Gly	Pro	Glu	Val 175	Thr
Met	Leu	Lys	Asp 180	Ala	Gln	His	Tyr	Gly 185	Gly	Trp	Glu	His	Arg 190	Asp	Val
His	Asn	Ile 195	Tyr	Gly	Leu	Tyr	Val 200	His	Met	Ala	Thr	Ala 205	Asp	Gly	Leu
Arg	Gln 210	Arg	Ser	Gly	Gly	Met 215	Glu	Arg	Pro	Phe	Val 220	Leu	Ala	Arg	Ala
Phe 225	Phe	Ala	Gly	Ser	Gln 230	Arg	Phe	Gly	Ala	Val 235	Trp	Thr	Gly	Asp	Asn 240
Thr	Ala	Glu	Trp	Asp 245	His	Leu	Lys	Ile	Ser 250	Ile	Pro	Met	Cys	Leu 255	Ser
Leu	Gly	Leu	Val 260	Gly	Leu	Ser	Phe	Cys 265	Gly	Ala	Asp	Val	Gly 270	Gly	Phe
Phe	Lys	Asn 275	Pro	Glu	Pro		Leu 280	Leu	Val	Arg	Trp	Tyr 285	Gln	Met	Gly

Ala	Tyr 290	Gln	Pro	Phe	Phe	Arg 295	Ala	His	Ala	His	Leu 300	Asp	Thr	Gly	Arg
Arg 305	Glu	Pro	Trp	Leu	Leu 310	Pro	Ser	Gln	His	Asn 315	Asp	Ile	Ile	Arg	Asp 320
Ala	Leu	Gly	Gln	Arg 325	Tyr	Ser	Leu	Leu	Pro 330	Phe	Trp	Tyr	Thr	Leu 335	Leu
Tyr	Gln	Ala	His 340	Arg	Glu	Gly	Ile	Pro 345	Val	Met	Arg	Pro	Leu 350	Trp	Val
		Pro 355					360					365			
	370	Asp				375					380				
385		Gln			390					395					400
		Tyr		405					410					415	
		Ser	420					425		-	_		430		
	_	Met 435					440					445			
	450	Leu				455				_	460			_	
465		Leu			470					475					480
		Leu Asp	_	485					490					495	
		Ile	500					505					510		
		515 Ser		_			520					525			
	530	Leu				535					540				
545	7 Q 1	₽€U	AGT	<u>u</u> eu	550	n y s	nda	GIÀ	116	555	AGT	nia	Jei	vəħ	560

Ser Ile His Leu Arg 565

<210> 558

<211> 160

<212> PRT

<213> Homo sapiens

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<400> 558

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Gln Arg Arg Glu His Arg Gly Arg Gly Leu Leu His Leu Arg Glu Ala 20 25 30

Pro Gly Gly Gly Ala Ala Xaa His Arg Pro His Arg Gly Pro Arg Gly 35 40 45

Pro Ser Arg Gly Ala Glu Gly Glu Arg Pro Pro Glu Gly Pro Ser Arg 50 55 60

Ala Ser Ser Val Thr Thr Phe Thr Gly Glu Pro Asn Thr Cys Pro Arg
65 70 75 80

Cys Ser Lys Lys Val Tyr Phe Ala Glu Lys Val Thr Ser Leu Gly Lys 85 90 95

Asp Trp His Arg Pro Cys Leu Arg Cys Glu Arg Cys Gly Lys Thr Leu 100 105 110

Thr Pro Gly Gly His Ala Glu His Asp Gly Gln Pro Tyr Cys His Lys 115 120 125

Pro Cys Tyr Gly Ile Leu Phe Gly Pro Lys Gly Val Asn Thr Gly Ala 130 135 140

Val Gly Ser Tyr Ile Tyr Asp Arg Asp Pro Glu Gly Lys Val Gln Pro 145 150 155 160

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515

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Phe	Gly	Leu	Ala 20	Asn	Gln	Ser	Glu	Asp 25	Leu	Ser	Val	Phe	Tyr 30	Pro	Gly
Thr	Leu	Leu 35	Glu	Thr	Gly	His	Asp 40	Ile	Leu	Phe	Phe	Trp 45	Val	Ala	Arg
Met	Val 50	Met	Leu	Gly	Leu	Lys 55	Leu	Thr	Gly	Arg	Leu 60	Pro	Phe	Arg	Glu
Val 65	Tyr	Leu	His	Ala	Ile 70	Val	Arg	Asp	Ala	His 75	Gly	Arg	Lys	Met	Ser 80
Lys	Ser	Leu	Gly	Asn 85	Val	Ile	Asp	Pro	Leu 90	Asp	Val	Ile	Tyr	Gly 95	Ile
Ser	Leu	Gln	Gly 100	Leu	His	Asn	Gln	Leu 105	Leu	Asn	Ser	Asn	Leu 110	Asp	Pro
Ser	Glu	Val 115	Glu	Lys	Ala	Lys	Glu 120	Gly	Gln	Lys	Ala	Asp 125	Phe	Pro	Ala
Gly	Ile 130	Pro	Glu	Cys	Gly	Thr 135	Asp	Ala	Leu	Arg	Phe 140	Gly	Leu	Cys	Ala
туг 145	Met	Ser	Gln	Gly	Arg 150	Asp	Ile	Asn	Leu	Asp 155	Val	Asn	Arg	Ile	Leu 160
Gly	Tyr	Arg	His	Phe 165	Cys	Asn	Lys	Leu	Trp 170	Asn	Ala	Thr	Lys	Phe 175	Ala
Leu	Arg	Gly	Leu 180	Gly	Lys	Gly	Phe	Val 185	Pro	Ser	Pro	Thr	Ser 190	Gln	Pro
Gly	Gly	His 195	Glu	Ser	Leu	Val	Asp 200	Arg	Trp	Ile	Arg	Ser 205	Arg	Leu	Thr
Glu	Ala 210	Val	Arg	Leu	Ser	Asn 215	Gln	Gly	Phe	Gln	Ala 220	Tyr	Asp	Phe	Pro
Ala	Val	Thr	Thr	Ala	Gln	Tyr	Ser	Phe	Trp	Leu	Tyr	Glu	Leu	Cys	Asp

225 230 235 240

Val	Tyr	Leu	Glu	Cys 245	Leu	Lys	Pro	Val	Leu 250	Asn	Gly	Val	Asp	Gln 255	Val
Ala	Ala	Glu	Cys 260	Ala	Arg	Gln	Thr	Leu 265	Туr	Thr	Cys	Leu	Asp 270	Val	Gly
Leu	Arg	Leu 275	Leu	Ser	Pro	Phe	Met 280	Pro	Phe	Val	Thr	Glu 285	Glu	Leu	Phe
Gln	Arg 290	Leu	Pro	Arg	Arg	Met 295	Pro	Gln	Ala	Pro	Pro 300	Ser	Leu	Cys	Val
Thr 305	Pro	Tyr	Pro	Glu	Pro 310	Ser	Glu	Cys	Ser	Trp 315	Lys	Asp	Pro	Glu	Ala 320
Glu	Ala	Ala	Leu	Glu 325	Leu	Ala	Leu	Ser	Ile 330	Thr	Arg	Ala	Val	Arg 335	Ser
Leu	Arg	Ala	Asp 340	Tyr	Asn	Leu	Thr	Arg 345	Ile	Arg	Pro	Asp	Cys 350	Phe	Leu
Glu	Val	Ala 355	Asp	Glu	Ala	Thr	Gly 360	Ala	Leu	Ala	Ser	Ala 365	Val	Ser	Gly
Tyr	Val 370	Gln	Ala	Leu	Ala	Ser 375	Ala	Gly	Val	Val	Ala 380	Val	Leu	Ala	Leu
Gly 385	Ala	Pro	Ala	Pro	Gln 390	Gly	Cys	Ala	Val	Ala 395	Leu	Ala	Ser	Asp	Arg 400
Cys	Ser	Ile	His	Leu 405	Gln	Leu	Gln	Gly	Leu 410	Val	Asp	Pro	Ala	Arg 415	Glu
Leu	Gly	Lys	Leu 420	Gln	Ala	Lys	Arg	Val 425	Glu	Ala	Gln	Arg	Gln 430	Ala	Gln
Arg	Leu	Arg 435	Glu	Arg	Arg	Ala	Ala 440	Ser	Gly	Tyr	Pro	Val 445	Lys	Val	Pro
Leu	Glu 450	Val	Gln	Glu	Ala	Asp 455	Glu	Ala	Lys	Leu	Gln 460	Gln	Thr	Glu	Ala
Glu 465	Leu	Arg	Lys	Val	Asp 470	Glu	Ala	Ile	Ala	Leu 475	Phe	Gln	Lys	Met	Leu 480

<211> 96

<212> PRT

<213> Homo sapiens

<400> 560

Ala Cys Leu Glu Arg Cys Gly Ser Trp Arg Pro His Arg Pro Met Thr

Ser Gly Ala Arg Glu Asn Pro Ile Gln Val Pro Arg Ser Ser Leu Glu 20 25 30

Ala Thr Gly Ala Gln Glu Arg Trp Ala Glu Asp Val Pro Tyr Pro Thr 35 40 45

Thr Arg Ala Val Ser Leu Pro Pro Ser Leu Gly Val Gly Ser Thr Gly 50 60

Met Ser Ser Ser Arg Phe Leu Gly Ser Leu Gly Lys His Gly Arg Leu 65 70 75 80

Asp Ser Ser Arg Arg Ala Arg Leu Trp Gly Arg Gly Gly Arg Gly Gly 85 90 95

<210> 561

<211> 60

<212> PRT

<213> Homo sapiens

<400> 561

Ile Arg His Glu Ser Ser Ile Leu Ser Val Leu Phe Ile Arg Phe Leu l 5 10 15

Lys Cys Ala Asp Pro Phe Lys Thr Pro Ala Tyr Leu Cys Asn Lys Glu 20 \cdot 25 \cdot 30

Lys Tyr Ser Lys Ile Leu Pro Ser Phe Ser His Thr Val Leu Lys Met 35 40 45

Leu Gln Asp Gln Ile Ile Ala His Lys Ile Arg Ser 50 55 60

<210> 562

<211> 241

<212> PRT

<213>	Homo	sapiens

- A	Λ	0>	-51	•	2

Ser Ser Met Ala Lys Pro Cys Gly Val Arg Leu Ser Gly Glu Ala Arg 1 5 10 15

Lys Gln Val Glu Val Phe Arg Gln Asn Leu Phe Gln Glu Ala Glu Glu 20 25 30

Phe Leu Tyr Arg Phe Leu Pro Gln Lys Ile Ile Tyr Leu Asn Gln Leu 35 40 45

Leu Gln Glu Asp Ser Leu Asn Val Ala Asp Leu Thr Ser Leu Arg Ala 50 55 60

Pro Leu Asp Ile Pro Ile Pro Asp Pro Pro Pro Lys Asp Asp Glu Met 65 70 75 80

Glu Thr Asp Lys Glu Glu Lys Lys Glu Val Pro Lys Cys Gly Phe Leu 85 90 95

Pro Gly Asn Glu Lys Val Leu Ser Leu Leu Ala Leu Val Lys Pro Glu 100 105 110

Val Trp Thr Leu Lys Glu Lys Cys Ile Leu Val Ile Thr Trp Ile Gln 115 120 125

His Leu Ile Pro Lys Ile Glu Asp Gly Asn Asp Phe Gly Val Ala Ile 130 135 140

Gln Glu Lys Val Leu Glu Arg Val Asn Ala Val Lys Thr Lys Val Glu 145 150 155 160

Ala Phe Gln Thr Thr Ile Ser Lys Tyr Phe Ser Glu Arg Gly Asp Ala 165 170 175

Val Ala Lys Ala Ser Lys Glu Thr His Val Met Asp Tyr Arg Ala Leu 180 185 190

Val His Glu Arg Asp Glu Ala Ala Tyr Gly Glu Leu Arg Ala Met Val 195 200 205

Leu Asp Leu Arg Ala Phe Tyr Ala Glu Leu Tyr His Ile Ile Ser Ser 210 215 220

Asn Leu Glu Lys Ile Val Asn Pro Lys Gly Glu Glu Lys Pro Ser Met 225 230 235 240

Tyr

<210> 563 <211> 200 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (145) <223> Xaa equals any of the naturally occurring L-amino acids <400> 563 Leu Gly Ser Ile Gln Val Met Gln Ala Val Arg Asn Ala Gly Ser Arg Phe Leu Arg Ser Trp Thr Trp Pro Gln Thr Ala Gly Arg Val Val Ala 25 Arg Thr Pro Ala Gly Thr Ile Cys Thr Gly Ala Arg Gln Leu Gln Asp Ala Ala Lys Gln Lys Val Glu Gln Asn Ala Ala Pro Ser His Thr 55 Lys Phe Ser Ile Tyr Pro Pro Ile Pro Gly Glu Glu Ser Ser Leu Arg Trp Ala Gly Lys Lys Phe Glu Glu Ile Pro Ile Ala His Ile Lys Ala 90 Ser His Asn Asn Thr Gln Ile Gln Val Val Ser Ala Ser Asn Glu Pro 105 Leu Ala Phe Ala Ser Cys Gly Thr Glu Gly Phe Arg Asn Ala Lys Lys Gly Thr Gly Ile Ala Ala Gln Thr Ala Gly Ile Ala Ala Ala Arg 130 135 Xaa Lys Gln Lys Gly Val Ile His Ile Arg Val Val Lys Gly Leu 150 Gly Pro Gly Arg Leu Ser Ala Met His Gly Leu Ile Met Gly Gly Leu 170 Glu Val Ile Ser Ile Thr Asp Asn Thr Pro Ile Pro His Asn Gly Cys 180 185 190

Arg Pro Arg Lys Ala Arg Lys Leu

PCT/US00/05881

<210> 564

WO 00/55173

<211> 115

<212> PRT

<213> Homo sapiens

<400> 564

Val Arg Leu Val Pro Gly Ala Asp Lys Tyr Asn Asp Asp Ile Arg Lys

1 10 15

Gly Ile Val Leu Leu Glu Glu Leu Leu Pro Lys Gly Ser Lys Glu Glu
20 25 30

Gln Arg Asp Tyr Val Phe Tyr Leu Ala Val Gly Asn Tyr Arg Leu Lys 35 40 45

Glu Tyr Glu Lys Ala Leu Lys Tyr Val Arg Gly Leu Leu Gln Thr Glu 50 60

Pro Gln Asn Asn Gln Ala Lys Glu Leu Glu Arg Leu Ile Asp Lys Ala 65 70 75 80

Met Lys Lys Asp Gly Leu Val Gly Met Ala Ile Val Gly Gly Met Ala 85 90 95

Leu Gly Val Ala Gly Leu Ala Gly Leu Ile Gly Leu Ala Val Ser Lys 100 105 110

Ser Lys Ser 115

<210> 565

<211> 101

<212> PRT

<213> Homo sapiens

<400> 565

Pro Thr Arg Pro Asp Glu His Asp Glu Asn Asn Ala Glu Ala Ser Ala 1 5 10 15

Glu Leu Ser Asn Glu Gly Val Met Asn His Arg Ser Glu Glu Glu Arg
20 25 30

Val Thr Glu Thr Gln Lys Asn Glu Arg Val Lys Lys Gln Leu Gln Ala 35 40 45

Leu Ser Ser Glu Leu Ala Gln Ala Arg Asp Glu Thr Lys Lys Thr Gln

521

50 55 60 Asn Asp Val Leu His Ala Glu Asn Val Lys Ala Gly Arg Asp Lys Tyr 70 Lys Thr Leu Arg Gln Ile Arg Gln Gly Asn Thr Lys Gln Arg Ile Asp 90 Glu Phe Glu Ala Met 100 <210> 566 <211> 25 <212> PRT <213> Homo sapiens <400> 566 Thr Ala Asp Leu Val Ile Arg Pro Pro Arg Pro Leu Lys Val Leu Gly 10 Phe Cys Val Phe Cys Ala Pro Pro Leu 20 <210> 567 <211> 274 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (182) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (216) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<221> SITE <222> (222)

<220>
<221> SITE
<222> (224)

<220>

	1> S														
		228)	gual	c 25	v of	+ ha			1,, 0		-:	T _ a	mino	301	de
122	J- X	aa e	quai	s all	y OI	Liie	Hac	urar	ry c	ccur	ring	L-a	milio	acı	us
<22	0>														
	1> S														
	•	231)			_							_			
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 5	67													
Ala	Ser	Pro	Glu	Val	Glu	Ala	Gly	Ala	Ala	Arg	Gln	Pro	Leu	Leu	Gly
1				5					10					15	
	_														
Val	Ala	Gly	Gly 20	Gln	Thr	Leu	Gly		Thr	Pro	Gly	Pro		Met	Ası
			20					25					30		
Gly	Pro	Ala	Asp	Gly	Glu	Val	Asp	Tyr	Lys	Lys	Lys	Tyr	Arg	Asn	Lei
		35					40	_	_	-	_	45	_		
Lys			Leu	Lys	Phe		Ile	туr	Glu	His		Cys	Phe	Gln	Glu
	50					55					60				
Glu	Leu	Arq	Lys	Ala	Gln	Arg	Lvs	Leu	Leu	Lvs	Val	Ser	Arq	Asp	Lvs
65		,	•		70		-4-			75			5		80
Ser	Phe	Leu	Leu	-	Arg	Leu	Leu	Gln	-	Glu	Asn	Val	Asp		Asp
				85					90					95	
Ser	Ser	Asp	Ser	Asp	Ala	Thr	Ala	Ser	Ser	Asn	Asn	Ser	Glu	Thr	Gli
			100					105					110		
Gly	Thr		Lys	Leu	Ser	Asp		Pro	Ala	Pro	Lys	Arg	Lys	Arg	Ser
		115					120					125			
Pro	Pro	Len	Gly	Glv	A1=	Pro	Sor	Pro	Ser	Ser	T.e.u	Ser	T.eu	Pro	Dro
	130		0-7			135			001	001	140	DCL	DCG		
Ser	Thr	Gly	Phe	Pro	Leu	Gln	Ala	Ser	Gly	Val	Pro	Ser	Pro	Tyr	Leu
145					150					155					160
C	C	T 0	210	C	C	N	m	D	D	nh-	D	C			•
ser	set	rea	Ala	165	ser	Arg	Tyr	PIO	170	Pne	PIO	ser	Asp	175	ren
				100					1,0					1/3	
Ala	Leu	Gln	Leu	Pro	Xaa	Pro	Ser	Pro	Leu	Arg	Pro	Lys	Arg	Glu	Lys
			180					185					190		-
												_			
Arg	Pro		Leu	Pro	Arg	Lys		Lys	Met	Ala	Val		Pro	Pro	Asp
		195					200					205			

Cys Pro Val Gly Gly Pro Leu Xaa Phe Pro Gly Arg Gly Xaa Gly Xaa 215 Gly Val Gly Xaa Thr Leu Xaa Pro Leu Pro Pro Pro Lys Met Pro Pro 230 235 Pro Thr Ile Leu Ser Thr Val Pro Arg Gln Met Phe Ser Asp Ala Gly Ser Gly Asp Asp Ala Leu Asp Gly Asp Asp Asp Leu Val Ile Asp Ile 265 Pro Glu <210> 568 <211> 133 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <400> 568 Ala Arg Gly Asp His Val Arg Ser Arg Glu Thr Gly Arg Gln Ser Ala Ser Lys Gly Gln Ile Pro Leu Leu Pro Arg Gly Pro Ala Val Pro Gly 20 Gly Pro Ser Ala Gln Thr Ala Ala Gln Arg Glu Leu Arg Gly Xaa Val Gly Ala Gly Ala Pro Val Tyr Leu Ala Ala Val Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala Ile Arg Asn Asp Glu 90 Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile Ala Gln Gly Gly Val 100 105

Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys Lys Thr Glu Ser Gln 115 120 125

524

Lys Thr Lys Ser Lys 130 <210> 569 <211> 153 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (136) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (152) <223> Xaa equals any of the naturally occurring L-amino acids Met Cys Arg Gly Tyr Ala Trp Asn Pro Gly Ile Thr Leu Gln Asn Arg Lys Thr Lys Glu Gly Pro Arg Ala Pro Pro Ser Arg Met Pro Glu Pro 25 Ala Gly Gly Leu Arg Gly Cys Glu Ala Val Gly Thr Leu Leu Met Lys 45 Glu Thr Val Phe Ala Leu His Pro Ser Leu Pro Leu Gly Ala Gly Ser Ser Pro Ser Ala Thr Cys Ser Glu Gly Leu His Leu Arg Gly Glu Gly 70 Trp Gly Lys Ser Pro Pro Val Pro Phe Leu Trp Pro Cys Cys Pro His Thr Gln Leu Arg Gly Pro Thr Leu Gly Lys Ala Gly Ser Ala Arg Ser Leu Ser Pro Ile Ser Ala Leu Ser Ala Trp Ile Pro Ala Glu Ala Met 115 120

Lys Gly Asn Lys Glu Lys Arg Xaa Xaa Lys Lys Lys Lys Lys Lys Lys 130 140

Lys Lys Lys Lys Lys Lys Xaa Pro 145 150

<210> 570

<211> 327

<212> PRT

<213> Homo sapiens

<400> 570

Pro Gly Ser Pro Arg Arg Cys Asp Ile Ile Ile Ile Ser Gly Arg Lys

1 10 15

Glu Lys Cys Glu Ala Ala Lys Glu Ala Leu Glu Ala Leu Val Pro Val 20 25 30

Thr Ile Glu Val Glu Val Pro Phe Asp Leu His Arg Tyr Val Ile Gly
35 40

Gln Lys Gly Ser Gly Ile Arg Lys Met Met Asp Glu Phe Glu Val Asn 50 55 60

Ile His Val Pro Ala Pro Glu Leu Gln Ser Asp Ile Ile Ala Ile Thr 65 70 75 80

Gly Leu Ala Ala Asn Leu Asp Arg Ala Lys Ala Gly Leu Leu Glu Arg 85 90 95

Val Lys Glu Leu Gln Ala Glu Gln Glu Asp Arg Ala Leu Arg Ser Phe 100 105 110

Lys Leu Ser Val Thr Val Asp Pro Lys Tyr His Pro Lys Ile Ile Gly
115 120 125

Arg Lys Gly Ala Val Ile Thr Gln Ile Arg Leu Glu His Asp Val Asn 130 135 140

Ile Gln Phe Pro Asp Lys Asp Asp Gly Asn Gln Pro Gln Asp Gln Ile 145 150 155 160

Thr Ile Thr Gly Tyr Glu Lys Asn Thr Glu Ala Ala Arg Asp Ala Ile 165 170 175

Leu Arg Ile Val Gly Glu Leu Glu Gln Met Val Ser Glu Asp Val Pro 180 185 190

Leu Asp His Arg Val His Ala Arg Ile Ile Gly Ala Arg Gly Lys Ala

526

195 200 205 Ile Arg Lys Ile Met Asp Glu Phe Lys Val Asp Ile Arg Phe Pro Gln 215 Ser Gly Ala Pro Asp Pro Asn Cys Val Thr Val Thr Gly Leu Pro Glu 230 Asn Val Glu Glu Ala Ile Asp His Ile Leu Asn Leu Glu Glu Tyr Leu Ala Asp Val Val Asp Ser Glu Ala Leu Gln Val Tyr Met Lys Pro 260 265 270 Pro Ala His Glu Glu Ala Lys Ala Pro Ser Arg Gly Phe Val Val Arg Asp Ala Pro Trp Thr Ala Ser Ser Ser Glu Lys Ala Pro Asp Met Ser 295 Ser Ser Glu Glu Phe Pro Ser Phe Gly Ala Gln Val Ala Pro Lys Thr 305 310 315 Leu Pro Trp Gly Pro Lys Arg 325 <210> 571 <211> 166 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids Gly Asn Ser Arg Val Asp Pro Arg Xaa Arg Gly Xaa Ala His Thr Cys

Ala Pro Cys Pro Ala Pro Gly Pro Leu Ala Gly Arg Ala Val Ser Gly

His Gly Ser Leu Pro Pro Asp Arg Ala Pro Ser Ala Leu Ser Ser

527

35 40 45 Pro Ala Asp Glu Gly Glu Arg Arg Pro Asp Leu Asp Glu Ile His 55 Arg Glu Leu Arg Pro Gln Gly Ser Ala Arg Pro Gln Pro Asp Pro Asn Ala Glu Phe Asp Pro Asp Leu Pro Gly Gly Leu His Arg Cys Leu Ala Cys Ala Arg Tyr Phe Ile Asp Ser Thr Asn Leu Lys Thr His Phe 100 105 Arg Ser Lys Asp His Lys Lys Arg Leu Lys Gln Leu Ser Val Glu Pro 120 Tyr Ser Gln Glu Glu Ala Glu Arg Ala Ala Gly Met Gly Ser Tyr Val 135 Pro Pro Arg Arg Leu Ala Val Pro Thr Glu Val Ser Thr Glu Val Pro Glu Met Asp Thr Ser Thr 165 <210> 572 <211> 113 <212> PRT <213> Homo sapiens <400> 572 Gln Ser Ser Thr Phe His Pro Ala Pro Ala Phe Gly Ala Thr Val Ala Ala Phe His Arg Arg Ala Ala Leu Arg Ala Pro Glu Pro Ala Met Ser 20 25 Gly Pro Asn Gly Asp Leu Gly Met Pro Val Glu Ala Gly Ala Glu Gly 40 Glu Glu Asp Gly Phe Gly Glu Ala Glu Tyr Ala Ala Ile Asn Ser Met 55

Leu Asp Gln Ile Asn Ser Cys Leu Asp His Leu Glu Glu Lys Asn Asp

His Leu His Ala Arg Leu Gln Glu Leu Leu Glu Ser Asn Arg Gln Thr

90

70

85

528

Arg Leu Glu Phe Gln Gln Gln Leu Gly Glu Ala Pro Ser Asp Ala Ser 100 105 110

Pro

<210> 573

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 573

Gly Ser Gly Ser Ser Arg Asp Leu His Lys Ala Leu Trp Glu Ala Gly
1 5 10 15

Trp Glu Thr Val Glu Gly Gly Cys Pro Leu Xaa Pro Arg Arg His Arg
20 25 30

Ile Trp Ala Leu Xaa Xaa Ala Phe Leu Pro Glu Tyr Ala Ala Ile Asn 35 40 45

Ser Met Leu Asp Gln Ile Asn Ser Cys Leu Asp His Leu Glu Glu Lys
50 60

Asn Asp His Leu His Ala Arg Leu Gln Glu Leu Leu Glu Ser Asn Arg 65 70 75 80

Gln Thr Arg Leu Glu Phe Gln Gln Gln Leu Gly Glu Ala Pro Ser Asp 85 90 95

Ala Ser Pro

WO 00/55173

	10> 11>														
	12>														
<2	13>	Homo	sapı	.ens									•		
	20>														
		SITE													
		(97)													
<2	23>	Xaa e	equal	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	20>														
<2	21>	SITE													
<2	22>	(124)	1												
<2	23>	Xaa e	equal	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	20>														
		SITE													
		(129)			_										_
<2.	23>	Kaa e	equal	s an	y of	the	nat	ural	ly o	ccur	rıng	L-a	штио	acı	ds
<40	00>	574													
Arg	Tr	o Ala	Arg	Val	Glu	Ala	Ala	Val	Met	Glu	Gly	Ala	Gly	Ala	Gly
	l			5					10					15	
	•														
Sei	Gl	, Phe	Arg	Lys	Glu	Leu	Val	Ser	Arg	Leu	Leu	His	Leu	His	Phe
			20					25	-				30		
Lys	As) Asp	Lys	Thr	Lys	Val	Ser	Gly	Asp	Ala	Leu	Gln	Leu	Met	Val
		35			_		40	_	-			45			
Glu	Le	ı Leu	Lys	Val	Phe	Val	Val	Glu	Ala	Ala	Val	Arq	Gly	Val	Arq
	50		•		•	55					60		•		
	_					•					• •				
Glr	. Ala	a Gln	Ala	Glu	Asp	Ala	Leu	Ara	Val	Asp	Val	Asp	Gln	Leu	Glu
65					70			•••		75		1106			80
•					. •					, 3					-
I.vs	. Va	Leu	Ara	Ser	Cvs	Ser	Glv	T.011	T.en	Glv	Tle	Ser	Δla	Val	בומ
-,-			9	85	- 10		,	200	90	,				95	
				0.5					,,					,,	
Vaa	. Al-	Thr	Dro	7-~	C1	21-	Dwa	c1	Dro	C1-	T 110	Cln	212	LON	C
Add	Alc	1 1111		ALG	GIY	Ald	Pro	-	PIO	GIII	гåг	GIII		rea	cys
			100					105					110		
	~ .	_	_	_		_		_							
Phe	GII	Arg		Leu	He	Arg	-	Arg	Glu	Gly	Xaa		GIY	Phe	GIY
		115					120					125			
		_	_	_					_		_		_•	_	
Xaa		Ser	Asn	Lys	Ile		Gly	Ser	Leu	Gln		Val	Gln	Lys	Gly
	130)				135					140				
			_		_	_		_			_		c)	- .	_
~1-	7			B 1 -	T	B		T	~1	7	Dwa	1707	C1	Tibe see	T

530

Gly Leu Ala Ser Arg 195

<210> 575 <211> 47 <212> PRT <213> Homo sapiens

Leu Gln Asn Thr Val Tyr Val Ser Ala Ser Leu Gly Asn Gly Arg Gly 20 25 30

Gln Lys Lys Val Thr Phe Asn Leu Cys Ile Phe Ala Lys Pro Tyr 35 40 45

<210> 576 <211> 115 <212> PRT <213> Homo sapiens

<400> 576
Trp Ser Arg Thr Ser Gln Pro Leu Pro Ser Thr Val Gly Cys Pro Arg
1 5 10 15

Arg Arg Gly Phe Lys Asp Phe Gln Arg Arg Ile Leu Val Ala Thr Asn $20 \hspace{1cm} 25 \hspace{1cm} 30$

Leu Phe Gly Arg Gly Met Asp Ile Glu Arg Val Asn Ile Ala Phe Asn 35 40 45

Tyr Asp Met Pro Glu Asp Ser Asp Thr Tyr Leu His Arg Val Ala Arg 50 55 60

Ala Gly Arg Phe Gly Thr Lys Gly Leu Ala Ile Thr Phe Val Ser Asp 65 70 75 80

Glu Asn Asp Ala Lys Ile Leu Asn Asp Val Gln Asp Arg Phe Glu Val
85 90 95

Asn Ile Ser Glu Leu Pro Asp Glu Ile Asp Ile Ser Ser Tyr Ile Glu 100 105 110

Gln Thr Arg 115

<210> 577

<211> 346

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 577

Val Thr Ser Cys Val Ala Leu Leu Pro Ala Arg Arg Met Thr Tyr Thr 1 5 10 15

Thr Glu Thr Ala Leu Leu Asn Trp Ser Thr Cys Gln Met Val Leu Arg 20 25 30

Gly Ala Glu Thr Xaa Gly Cys Val Ile Val Ser Ala Ala Lys Ala Gln 35 40

Leu Leu Gln Cys Gln His His Pro Ala Trp Tyr Gly Asp Thr Leu Lys 50 60

Gln Lys Thr Ser Trp Thr Cys Leu Leu Asp Gly Met Gln Tyr Phe Ala 65 70 75 80

Thr Thr Glu Ser Ser Pro Thr Glu Gln Asp Gly Arg Gln Leu Trp Leu 85 90 95

Glu Val Lys Asn Ile Glu Glu His Arg Gln Arg Ser Leu Asp Ser Val 100 105 110

Gln Glu Leu Met Glu Ser Gly Gln Ala Val Gly Gly Met Val Thr Thr . 115 120 125

Thr Thr Asp Trp Asn Gln Pro Ala Glu Ala Gln Gln Ala Gln Gln Val 130 135 140

Gln Arg Ile Ile Ser Arg Cys Asn Cys Arg Met Tyr Tyr Ile Ser Tyr 145 150 155 160

532

Ser	His	Asp	Ile	Asp 165	Pro	Glu	Leu	Ala	Thr 170	Gln	Ile	Lys	Pro	Pro 175	Glu
Val	Leu	Glu	Asn 180	Gln	Glu	Lys	Glu	Asp 185	Leu	Leu	Lys	Lys	Gln 190	Glu	Gly
Ala	Val	Asp 195	Thr	Phe	Thr	Leu	Ile 200		His	Glu	Leu	Glu 205	Ile	Ser	Thr
Asn	Pro 210	Ala	Gln	туг	Ala	Met 215	Ile	Leu	Asp	Ile	Val 220	Asn	Asn	Leu	Leu
Leu 225	His	Val	Glu	Pro	Lys 230	Arg	Lys	Glu	His	Ser 235	Glu	Lys	Lys	Gln	Arg 240
Val	Arg	Phe	Gln	Leu 245	Glu	Ile	Ser	Ser	Asn 250	Pro	Glu	Glu	Gln	Arg 255	Ser
Ser	Ile	Leu	His 260	Leu	Gln	Glu	Ala	Val 265	Arg	Gln	His	Val	Ala 270	Gln	Ile
Arg	Gln	Leu 275	Glu	Lys	Gln	Met	Туг 280	Ser	Ile	Met	Lys	Ser 285	Leu	Gln	Asp
Asp	Ser 290	Lys	Asn	Glu	Asn	Leu 295	Leu	Asp	Leu	Asn	Gln 300	Lys	Leu	Gln	Leu
Gln 305	Leu	Asn	Gln	Glu	Lys 310	Ala	Asn	Leu	Gln	Leu 315	Glu	Ser	Glu	Glu	Leu 320
Asn	Ile	Leu	Ile	Arg 325	Cys	Phe	Lys	Asp	Phe 330	Gln	Leu	Gln	Arg	Ala 335	Asn
Lys	Met	Glu	Leu 340	Arg	Lys	His	Lys	Lys 345	Met						

<210> 578

<211> 91

<212> PRT

<213> Homo sapiens

<400> 578

Arg His Glu Gly His Leu Gly Ser Gly Arg Asn Gly Gly Gly Ser Met

Asn Ala Pro Pro Ala Phe Glu Ser Phe Leu Leu Phe Glu Gly Glu Lys 20 25 30

Ile Thr Ile Asn Lys Asp Thr Lys Val Pro Asn Ala Cys Leu Phe Thr 45 40 Ile Asn Lys Glu Asp His Thr Leu Gly Asn Ile Ile Lys Ser Arg Ala 55 Cys Phe Pro Phe Ala Phe Cys Arg Asp Cys Gln Phe Pro Glu Ala Ser 70 75 Pro Ala Thr Leu Pro Val Gln Pro Ala Glu Leu 85 <210> 579 <211> 331 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (18) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (300) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (311) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (313) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (320) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE

534

<222> (325)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 579

Gly Arg Pro Thr Arg Pro Gly Gly Leu Gly Ser Gly Val Leu Ala Leu 1 5 10 15

Ala Xaa Gly Xaa Pro Ala Arg Leu Ala Gly Thr Val His Glu Val Gly
20 25 30

Asp Ala Pro Arg Ala Pro Asp Gln Ala Ala Glu Ile Gly Ser Arg
35 40 45

Gly Ser Thr Lys Ala Gln Gly Pro Gln Gln Pro Gly Ser Glu Gly
50 60

Pro Ser Tyr Ala Lys Lys Val Ala Leu Trp Leu Ala Gly Leu Leu Gly 65 70 75 80

Ala Gly Gly Thr Val Ser Val Val Tyr Ile Phe Gly Asn Asn Pro Val
85 90 95

Asp Glu Asn Gly Ala Lys Ile Pro Asp Glu Phe Asp Asn Asp Pro Ile 100 105 110

Leu Val Gln Gln Leu Arg Arg Thr Tyr Lys Tyr Phe Lys Asp Tyr Arg 115 120 125

Gln Met Ile Ile Glu Pro Thr Ser Pro Cys Leu Leu Pro Asp Pro Leu 130 135 140

Gln Glu Pro Tyr Tyr Gln Pro Pro Tyr Thr Leu Val Leu Glu Leu Thr 145 150 155 160

Gly Val Leu Leu His Pro Glu Trp Ser Leu Ala Thr Gly Trp Arg Phe 165 170 175

Lys Lys Arg Pro Gly Ile Glu Thr Leu Phe Gln Gln Leu Ala Pro Leu 180 185 190

Tyr Glu Ile Val Ile Phe Thr Ser Glu Thr Gly Met Thr Ala Phe Pro 195 200 205

Leu Ile Asp Ser Val Asp Pro His Gly Phe Ile Ser Tyr Arg Leu Phe 210 215 220

Arg Asp Ala Thr Arg Tyr Met Asp Gly His His Val Lys Asp Ile Ser 225 230 235 240

Cys Leu Asn Arg Asp Pro Ala Arg Val Val Val Val Asp Cys Lys Lys 245 250 255

535

Glu Ala Phe Arg Leu Gln Pro Tyr Asn Gly Val Ala Leu Arg Pro Trp 265 Asp Gly Asn Ser Asp Asp Arg Val Leu Leu Asp Leu Ser Ala Phe Leu 280 Lys Thr Ile Ala Leu Asn Gly Val Gly Gly Arg Xaa Glu Pro Cys Trp 290 295 Glu His Tyr Ala Leu Gly Xaa Asp Xaa Pro Arg Trp Ala Ala Phe Xaa 310 315 Asn Ser Gly Lys Xaa Gly Leu Glu Ala Gly Arg 325 330 <210> 580 <211> 374 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (235) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (285) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (307) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (319) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (324) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (341)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (359)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 580

Pro Ser Thr Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Pro Arg 1 5 10 15

Val Arg Ala Gly Val Ala Ala Leu Ala Thr Val Gly Val Ala Ser Gly
20 25 30

Pro Gly Pro Gly Arg Pro Gly Pro Leu Gln Asp Glu Thr Leu Gly Val
35 40 45

Ala Ser Val Pro Ser Gln Trp Arg Ala Val Gln Gly Ile Arg Gly Glu
50 60

Thr Lys Ser Cys Gln Thr Ala Ser Ile Ala Thr Ala Ser Ala Ser Ala 65 70 75 80

Gln Ala Arg Asn His Val Asp Ala Gln Val Gln Thr Glu Ala Pro Val 85 90 95

Pro Val Ser Val Gln Pro Pro Ser Gln Tyr Asp Ile Pro Arg Leu Ala 100 105 110

Ala Phe Leu Arg Arg Val Glu Ala Met Val Ile Arg Glu Leu Asn Lys 115 120 125

Asn Trp Gln Ser His Ala Phe Asp Gly Phe Glu Val Asn Trp Thr Glu 130 135 140

Gln Gln Met Val Ser Cys Leu Tyr Thr Leu Gly Tyr Pro Pro Ala 145 150 155 160

Gln Ala Gln Gly Leu His Val Thr Ser Ile Ser Trp Asn Ser Thr Gly 165 170 175

Ser Val Val Ala Cys Ala Tyr Gly Arg Leu Asp His Gly Asp Trp Ser 180 185 190

Thr Leu Lys Ser Phe Val Cys Ala Trp Asn Leu Asp Arg Arg Asp Leu 195 200 205

Arg Pro Gln Gln Pro Ser Ala Val Val Glu Val Pro Ser Ala Val Leu 210 215 220

Cys Leu Ala Phe His Pro Thr Gln Pro Ser Xaa Val Ala Gly Gly Leu

225 230 235 240 Tyr Ser Gly Glu Val Leu Val Trp Asp Leu Ser Arg Leu Glu Asp Pro 250 Leu Leu Trp Arg Thr Gly Leu Thr Asp Asp Thr His Thr Asp Pro Val 260 265 Ser Gln Val Val Trp Leu Pro Glu Pro Gly His Ser Xaa Arg Phe Gln 280 Val Leu Ser Val Ala Thr Asp Gly Lys Val Leu Leu Trp Gln Gly Ile Gly Val Xaa Gln Leu Gln Phe Thr Glu Gly Phe Ala Trp Phe Xaa Gln 310 Gln Leu Pro Xaa Ser Thr Lys Leu Lys Lys His Pro Arg Gly Arg Pro 330 Arg Trp Ala Pro Xaa Gln Ala Phe Phe Gln Phe Asp Leu Arg Phe Ser 345 Phe Trp Gln Glu Ala Val Xaa Val Gln Phe Ser Trp His Trp Arg Ala 360 Ala Leu Arg Gly Ala His 370 <210> 581 <211> 94 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (80) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (90) <223> Xaa equals any of the naturally occurring L-amino acids <400> 581 Cys Pro Asp Gln Asn Gly Trp Ala Ser Phe Gly Ala Pro Leu Ser Ala 10

Gly Gly Gln Pro Cys Tyr Leu Leu Asp Ile Gly Cys Gly Ser Gly Leu

538

20 25 30 Ser Gly Asp Tyr Leu Ser Asp Glu Gly His Tyr Trp Val Gly Ile Asp 40 Ile Ser Pro Ala Met Leu Asp Ala Ala Leu Asp Arg Asp Thr Glu Gly 55 Asp Leu Leu Gly Asp Met Gly Gln Gly Ile Pro Phe Lys Pro Xaa Ser Leu Met Asp Val Ser Ala Phe Cys Xaa Ser Val Ala Leu <210> 582 <211> 163 <212> PRT <213> Homo sapiens <400> 582 Pro Thr Arg Pro Ala Ala Gly Gly Ala Glu Arg Ile Ala Gly Ser Ala Met Ser Ser Glu Pro Pro Pro Pro Pro Pro Pro Pro Thr His Gln Ala 25 Ser Val Gly Leu Leu Asp Thr Pro Arg Ser Arg Glu Arg Ser Pro Ser 40 Pro Leu Arg Gly Asn Val Val Pro Ser Pro Leu Pro Thr Arg Arg Thr Arg Thr Phe Ser Ala Thr Val Arg Ala Ser Gln Gly Pro Val Tyr Lys 75 Gly Val Cys Lys Cys Phe Cys Arg Ser Lys Gly His Gly Phe Ile Thr 85 Pro Ala Asp Gly Gly Pro Asp Ile Phe Leu His Ile Ser Asp Val Glu 105 Gly Glu Tyr Val Pro Val Glu Gly Asp Glu Val Thr Tyr Lys Met Cys 115 120

Ser Ile Pro Pro Lys Asn Glu Lys Leu Gln Ala Val Glu Val Val Ile

Thr His Leu Ala Pro Gly Thr Lys His Glu Thr Trp Ser Gly His Val

155

135

150

PCT/US00/05881

Ile Ser Ser

WO 00/55173

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<400> 583
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Asp Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr

			20					25					30		
Ile	Asp	Val 35	Tyr	Met	Ile	Met	Val 40	Lys	Cys	Trp	Met	Ile 45	Asp	Ser	Glu
Cys	Arg 50	Pro	Xaa	Xaa	Arg	Glu 55	Leu	Val	Xaa	Glu	Phe 60	Ser	Arg	Met	Ala
Arg 65	_	Pro	Gln	Arg	Phe 70	Val	Val	Ile	Gln	Asn 75	Glu	Asp	Leu	Gly	Pro 80
Ala	Ser	Pro	Leu	Asp 85	Ser	Thr	Phe	Tyr	Arg 90	Ser	Leu	Leu	Glu	Asp 95	Asp
Asp	Met	Gly	Asp 100	Leu	Val	Asp	Ala	Glu 105	Glu	Tyr	Leu	Val	Pro 110	Gln	Glr
Gly	Phe	Phe 115	Cys	Pro	Asp	Pro	Ala 120	Pro	Gly	Ala	Gly	Gly 125	Met	Val	His
His	Arg 130	His	Arg	Ser	Ser	Ser 135	Thr	Arg	Ser	Gly	Gly 140	Gly	Asp	Leu	Thr
Leu 145	Gly	Leu	Glu	Pro	Xaa 150	Glu	Arg	Gly	Gly	Pro 155	Gln	Val	Ser	Thr	Gly 160
Thr	Leu	Arg	Arg	Ala 165	Gly	Ser	Asp	Val	Phe 170	Xaa	Gly	Asp	Leu	Gly 175	Met
Gly	Ala	Ala	Lys 180	Gly	Leu	Gln	Ser	Leu 185	Pro	Thr	His	Asp	Pro 190	Ser	Pro
Leu	Gln	Arg 195	Tyr	Ser	Glu	Asp	Pro 200	Thr	Val	Pro	Leu	Pro 205	Ser	Xaa	Thr
Asp	Gly 210	Tyr	Val	Ala	Pro	Leu 215	Thr	Cys	Ser	Pro	Gln 220	Pro	Glu	Tyr	Val
Asn 225	Gln	Pro	Asp	Val	Arg 230	Pro	Gln	Pro	Pro	Ser 235	Pro	Arg	Glu	Gly	Pro 240
Leu	Pro	Ala	Ala	Arg 245	Pro	Ala	Gly	Ala	Thr 250	Leu	Glu	Arg	Xaa	Lys 255	Thr
Leu	Ser	Pro	Gly 260	Lys	Asn	Gly	Val	Val 265	Lys	Glu	Phe	Leu	Pro 270	Leu	Gly
Val	Pro	Trp 275	Arg	Thr	Pro	Ser	Ile 280	Asp	Thr	Pro	Gly	Glu 285	Gly	Ala	Cys
Pro	Ser	Ala	Pro	Pro											

290

<210> 584

<211> 132

<212> PRT

<213> Homo sapiens

<400> 584

Gly Gly Ala Gln Pro Gly Met Glu Gly Ala Ala Ala Thr Val His Leu
1 10 15

Ile Ser Gln Trp Ala Val Glu Pro Asn Ala Arg Val Gly Pro Leu Leu 20 25 30

Glu Val Glu Ala Ala Ala Ala Asp His His Glu Ala Ala Ala Gly Ala 35 40 45

Gly Ser Ala Val Glu Lys Ile Cys Ile Asp Lys Gly Leu Thr Asp Glu
50 60

Ser Glu Ile Leu Arg Phe Leu Gln His Gly Thr Leu Val Gly Leu Leu 65 70 75 80

Pro Val Pro His Pro Ile Leu Ile Arg Lys Tyr Gln Ala Asn Ser Gly 85 90 95

Thr Ala Met Trp Phe Arg Thr Tyr Met Trp Gly Val Ile Tyr Leu Arg 100 105 110

Asn Val Asp Pro Pro Val Trp Tyr Asp Thr Asp Val Lys Leu Phe Glu 115 120 125

Ile Gln Arg Val

<210> 585

<211> 218

<212> PRT

<213> Homo sapiens

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<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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Ala Thr Pro Pro Ser Ala Leu Gly Ser Gln Asp Gly Ser Arg Thr Arg
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Asp Arg Leu Gly Ala Ala Gly Trp Pro Gly Leu Val Val Gly Leu Cys
Thr Pro Ala Ala Gly Xaa Gln Arg Asp Leu Leu His Arg Arg Gly Gly
     50
                         55
                                              60
Thr Ala Ser Phe Gly Lys Ser Phe Ala Gln Lys Ser Gly Tyr Phe Leu
 65
                     70
Cys Leu Ser Ser Leu Gly Ser Leu Glu Asn Pro Xaa Glu Asn Val Val
                 85
                                     90
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Ala Asp Ile Gln Ile Val Val Asp Lys Ser Pro Leu Pro Leu Gly Phe 105 Ser Pro Val Cys Xaa Pro Met Asp Ser Lys Ala Ser Val Ser Lys Lys 120 Lys Arg Met Cys Val Lys Leu Leu Pro Leu Gly Xaa Xaa Asp Thr Ala Val Phe Asp Val Arg Leu Ser Gly Lys Thr Lys Thr Val Pro Gly Tyr Leu Arg Ile Gly Asp Met Gly Gly Phe Ala Ile Trp Cys Lys Lys Gly 170 165 Gln Gly Pro Glu Ala Ser Cys Pro Lys Pro Arg Xaa Pro Gln Pro Gly 185 Thr Cys Lys Gly Phe Ser Xaa Xaa Ala Ala Ser Gln Pro Lys Leu Arg 200 Ala Gly Leu Leu Gly Ser Arg Thr Ser Val 210 <210> 586 <211> 233 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <400> 586 Ala Arg Gly Glu Met Glu Gly Arg Gln Val Leu Glu Val Lys Met Gln Val Glu Tyr Met Ser Phe Ser Ala His Ala Asp Ala Lys Gly Ile Met 20 25 Gln Leu Val Gly Gln Ala Glu Pro Xaa Ser Val Leu Leu Val His Gly Glu Ala Lys Lys Met Glu Phe Leu Lys Gln Lys Ile Glu Gln Glu Leu

Arg Val Asn Cys Tyr Met Pro Ala Asn Gly Glu Thr Val Thr Leu Pro

544

. 75 65 70 80 Thr Ser Pro Ser Ile Pro Val Gly Ile Ser Leu Gly Leu Leu Lys Arg Glu Met Ala Gln Gly Leu Leu Pro Glu Ala Lys Lys Pro Arg Leu Leu 100 105 His Gly Thr Leu Ile Met Lys Asp Ser Asn Phe Arg Leu Val Ser Ser 120 Glu Gln Ala Leu Lys Glu Leu Gly Leu Ala Glu His Gln Leu Arg Phe Thr Cys Arg Val His Leu His Asp Thr Arg Lys Glu Gln Glu Thr Ala Leu Arg Val Tyr Ser His Leu Lys Ser Val Leu Lys Asp His Cys Val 165 170 Gln His Leu Pro Asp Gly Ser Val Thr Val Glu Ser Val Leu Leu Gln 185 Ala Ala Pro Ser Glu Asp Pro Gly Thr Lys Val Leu Leu Val Ser 200 Trp Thr Tyr Gln Asp Glu Glu Leu Gly Ser Phe Leu Thr Ser Leu Leu 210 Lys Lys Gly Leu Pro Gln Ala Pro Ser 225 230 <210> 587 <211> 116 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (100) <223> Xaa equals any of the naturally occurring L-amino acids <400> 587 Gly Pro Leu Ser His His Ile Arg Ala Gln Leu Ser Lys Met Leu Leu Ala Arg Lys Gln Ile Leu Cys Val Asn Val Lys Asn Phe Ala Val Ile

25

WO 00/55173 PCT/US00/05881

Tyr Leu Val Asp Ile Thr Glu Val Pro Asp Phe Asn Lys Met Tyr Glu 40 Leu Tyr Asp Pro Cys Thr Val Met Phe Phe Arg Asn Lys His Ile Met Ile Asp Leu Gly Thr Gly Asn Asn Lys Ile Asn Trp Ala Met Glu Asp Lys Gln Glu Met Val Asp Ile Ile Glu Thr Val Tyr Arg Gly Ala Arg Lys Xaa Arg Gly Leu Val Val Ser Pro Lys Asp Tyr Ser Thr 105 Lys Tyr Arg Tyr 115 <210> 588 <211> 133 <212> PRT <213> Homo sapiens <400> 588 Ala Arg Ala Ala Val Gly Arg Thr Ala Gly Val Arg Thr Trp Ala Pro Leu Ala Met Ala Ala Lys Val Asp Leu Ser Thr Ser Thr Asp Trp Lys Glu Ala Lys Ser Phe Leu Lys Gly Leu Ser Asp Lys Gln Arg Glu Glu 40 His Tyr Phe Cys Lys Asp Phe Val Arg Leu Lys Lys Ile Pro Thr Trp Lys Glu Met Ala Lys Gly Val Ala Val Lys Val Glu Glu Pro Arg Tyr Lys Lys Asp Lys Gln Leu Asn Glu Lys Ile Ser Leu Leu Arg Ser Asp

Ile Thr Lys Leu Glu Val Asp Ala Ile Val Asn Ala Ala Asn Ser Ser 100 105 110

Pro Pro Pro Arg Ser Leu Ile Lys Asp Leu Arg Cys Gly Lys Lys 115 120 125

Lys Lys Lys Lys

546

130

<21	٥>	589

<211> 163

<212> PRT

<213> Homo sapiens

<400> 589

Arg His Arg Gly Gln Pro Leu Arg Gln Thr Arg Ala Ser Ser Pro
1 5 10 15

Gln Leu Ala Gly Arg Ser Ser Ser Val Leu Pro Ala Ala Ala Gln Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Cys Thr Pro Thr Met Asp Val Phe Lys Lys Gly Phe Ser Ile Ala Lys 35 40 45

Glu Gly Val Val Gly Ala Val Glu Lys Thr Lys Gln Gly Val Thr Glu
50 55 60

Ala Ala Glu Lys Thr Lys Glu Gly Val Met Tyr Val Gly Ala Lys Thr 65 70 75 80

Lys Glu Asn Val Val Gln Ser Val Thr Ser Val Ala Glu Lys Thr Lys 85 90 95

Glu Gln Ala Asn Ala Val Ser Glu Ala Val Val Ser Ser Val Asn Thr
100 105 110

Val Ala Thr Lys Thr Val Glu Glu Ala Glu Asn Ile Ala Val Thr Ser 115 120 125

Gly Val Val Arg Lys Glu Asp Leu Arg Pro Ser Ala Pro Gln Glu 130 135 140

Gly Glu Ala Ser Lys Glu Lys Glu Glu Val Ala Glu Glu Ala Gln Ser 145 150 155 160

Gly Gly Asp

<210> 590

<211> 59

<212> PRT

<213> Homo sapiens

<400> 590

547

Arg Ala Leu Leu Cys Leu Gly His His Pro Leu Leu Ala Gln Gly Val

1 5 10 15

Pro Ala Leu Ser Asp Met Arg Leu Pro Thr Leu Leu Pro Ser Ser Pro 20 25 30

Trp Pro Pro Leu Ala Cys Pro Pro Val Leu Leu His Gln Pro His Cys 35 40 45

Pro Pro Ser Ala Pro Pro Thr Leu Trp Ser Phe 50 55

<210> 591

<211> 116

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (31)

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<400> 591

Val His Ala Glu Ala Gly Arg Leu Cys His Gly Asp Cys Pro Arg Leu

1 5 10 15

Cys Arg Pro Arg Gln Arg Ser Ala Pro Val Gln Val Tyr Thr Xaa Arg 20 25 30

Gln Ala Ala Leu His Gly Arg Pro Gln Arg Asp Pro Cys Val Gly Gly 35 40 45

Pro Arg Pro Leu Arg Cys Ser Arg Asp Cys Gly Gly Gly His Gln Arg 50 55 60

Leu Val Met Pro Gly Thr Trp Thr Gln Ala Trp Gln Arg Arg Gln Val 65 · 70 75 80

Val Asn Gly Leu Met Leu Gly Gln Ala Arg Ile His Val Asn Arg Leu 85 90 95

Glu Gln Ala Val Val Asn Leu Ala Pro Cys Glu Tyr Phe His Thr Cys 100 105 110

Cys Pro Phe Ala

548

<210> 592 <211> 290 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (239) <223> Xaa equals any of the naturally occurring L-amino acids Arg Arg Ser Leu Asn Thr His Gly Ser Gly Val Ser Val Cys Leu Gln Ser Leu Thr Leu Leu Ala Thr Leu Cys Pro Gly Asp Gln Xaa Ser Leu 25 Gly Leu Leu Thr Pro Cys Tyr Ser Gly Ser Glu Pro Ser Gly Thr Phe Gly Pro Val Asn Pro Ser Leu Asn Asn Thr Tyr Glu Phe Met Ser Thr Phe Phe Leu Glu Val Ser Ser Val Phe Pro Asp Phe Tyr Leu His Leu 65 70 Gly Gly Asp Glu Val Asp Phe Thr Cys Trp Lys Ser Asn Pro Glu Ile Gln Asp Phe Met Arg Lys Lys Gly Phe Gly Glu Asp Phe Lys Gln Leu 105 Glu Ser Phe Tyr Ile Gln Thr Leu Leu Asp Ile Val Ser Ser Tyr Gly Lys Gly Tyr Val Val Trp Gln Glu Val Phe Asp Asn Lys Val Lys Ile 135 Gln Pro Asp Thr Ile Ile Gln Val Trp Arg Glu Asp Ile Pro Val Asn Tyr Met Lys Glu Leu Glu Leu Val Thr Lys Ala Gly Phe Arg Ala Leu 170 Leu Ser Ala Pro Trp Tyr Leu Asn Arg Ile Ser Tyr Gly Pro Asp Trp

549

Lys Asp Phe Tyr Val Val Glu Pro Leu Ala Phe Glu Gly Thr Pro Glu 195 200 205

Gln Lys Ala Leu Val Ile Gly Gly Glu Ala Cys Met Trp Gly Glu Tyr 210 215 220

Val Asp Asn Thr Asn Leu Val Pro Arg Leu Trp Pro Arg Ala Xaa Ala 225 230 235 240

Val Ala Glu Arg Leu Trp Ser Asn Lys Leu Thr Ser Asp Leu Thr Phe 245 250 255

Ala Tyr Glu Arg Leu Ser His Phe Arg Cys Glu Leu Leu Arg Arg Gly 260 265 270

Val Gln Ala Gln Pro Leu Asn Val Gly Phe Cys Glu Gln Glu Phe Glu 275 280 285

Gln Thr 290

<210> 593

<211> 665

<212> PRT

<213> Homo sapiens

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<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 593

Asp Ala Asp Gly Arg Met Asp Xaa Leu Val Ser Glu Cys Ser Ala Arg

1 10 15

Leu Leu Gln Gln Glu Glu Ile Lys Ser Leu Thr Ala Glu Ile Asp 20 25 30

Arg Leu Lys Asn Cys Gly Cys Leu Gly Ala Ser Pro Asn Leu Glu Gln 35 40 45

Leu Gln Glu Glu Asn Leu Lys Leu Lys Tyr Arg Leu Asn Ile Leu Arg
50 60

Lys Ser Leu Gln Ala Glu Arg Asn Lys Pro Thr Lys Asn Met Ile Asn 65 70 75 80

Ile Ile Ser Arg Leu Gln Glu Val Phe Gly His Ala Ile Lys Ala Ala

WO 00/55173

				85					90					95	
Tyr	Pro	Asp	Leu 100		Asn	Pro	Pro	Leu 105		Val	Thr	Pro	Ser 110	Gln	Glm
Ala	Lys	Phe	Gly	Asp	Туг	Gln	Cys 120	Asn	Ser	Ala	Met	Gly 125	Ile	Ser	Gln
Met	Leu 130		Thr	Lys	Glu	Gln 135	Lys	Val	Asn	Pro	Arg 140	Glu	Ile	Ala	Glu
Asn 145	Ile	Thr	Lys	His	Leu 150	Pro	Asp	Asn	Glu	Суз 155	Ile	Glu	Lys	Val	Glu 160
Ile	Ala	Gly	Pro	Gly 165	Phe	Ile	Asn	Val	His 170	Leu	Arg	Lys	Asp	Phe 175	Val
Ser	Glu	Gln	Leu 180	Thr	Ser	Leu	Leu	Val 185	Asn	Gly	Val	Gln	Leu 190	Pro	Ala
Leu	Gly	Glu 195	Asn	Lys	Lys	Val	Ile 200	Val	Asp	Phe	Ser	Ser 205	Pro	Asn	Ile
Ala	Lys 210	Glu	Met	His	Val	Gly 215	His	Leu	Arg	Ser	Thr 220	Ile	Ile	Gly	Glu
Ser 225	Ile	Ser	Arg	Leu	Phe 230	Glu	Phe	Ala	Gly	Tyr 235	Asp	Val	Leu	Arg	Leu 240
Asn	His	Val	Gly	Asp 245	Trp	Gly	Thr	Gln	Phe 250	Gly	Met	Leu	Ile	Ala 255	His
Leu	Gln	Asp	Lys 260	Phe	Pro	Asp	Tyr	Leu 265	Thr	Val	Ser	Pro	Pro 270	Ile	Gly
Asp	Leu	Gln 275	Val	Phe	Tyr	Lys	Glu 280	Ser	Lys	Lys	Arg	Phe 285	Asp	Thr	Glu
3lu	Glu 290	Phe	Lys	Lys	Arg	Ala 295	Tyr	Gln	Cys	Val	Val 300	Leu	Leu	Gln	Gly
Lys 305	Asn	Pro	Asp	Ile	Thr 310	Lys	Ala	Trp	Lys	Leu 315	Ile	Суз	Asp	Val	Ser 320
Arg	Gln	Glu	Leu	Asn 325	Lys	Ile	Tyr	Asp	Ala 330	Leu	Asp	Val	Ser	Leu 335	Ile
Slu	Arg	Gly	Glu 340	Ser	Phe	Tyr	Gln	Asp 345	Arg	Met	Asn	Asp	Ile 350	Val	Lys
lu	Phe	Glu	Asp	Arg	Gly	Phe	Val	Gln	Val	Asp	qzA	Gly	Arg	Lys	Ile

		355					360					365			
Val	Phe 370	Val	Pro	Gly	Cys	Ser 375	Ile	Pro	Leu	Thr	11e 380	Val	Lys	Ser	Asp
Gly 385	Gly	Tyr	Thr	Tyr	Asp 390	Thr	Ser	Asp	Leu	Ala 395	Ala	Ile	Lys	Gln	Arg 400
Leu	Phe	Glu	Glu	Lys 405	Ala	Asp	Met	Ile	Ile 410	Tyr	Val	Val	Asp	Asn 415	Gly
Gln	Ser	Val	His 420	Phe	Gln	Thr	Ile	Phe 425	Ala	Ala	Ala	Gln	Met 430	Ile	Gly
Trp	Tyr	Asp 435	Pro	Lys	Val	Thr	Arg 440	Val	Phe	His	Ala	Gly 445	Phe	Gly	Va]
Val	Leu 450	Gly	Glu	Asp	Lys	Lys 455	Lys	Phe	Lys	Thr	Arg 460	Ser	Gly	Glu	Thi
Val 465	Arg	Leu	Met	Asp	Leu 470	Leu	Gly	Glu	Gly	Leu 475	Lys	Arg	Ser	Met	Asg 480
Lys	Leu	Lys	Glu	Lys 485	Glu	Arg	Asp	Lys	Val 490	Leu	Thr	Ala	Glu	Glu 495	Leu
Asn	Ala	Ala	Gln 500	Thr	Ser	Val	Ala	туг 505	Gly	Cys	Ile	Lys	Туг 510	Ala	Asp
Leu	Ser	His 515	Asn	Arg	Leu	Asn	Asp 520	Tyr	Ile	Phe	Ser	Phe 525	Asp	Lys	Met
Leu	Asp 530	Asp	Arg	Gly	Asn	Thr 535	Ala	Ala	Tyr	Leu	Leu 540	Tyr	Ala	Phe	Thi
Arg 545	Ile	Arg	Ser	Ile	Ala 550	Arg	Leu	Ala	Asn	Ile 555	Asp	Glu	Glu	Met	Le:
Gln	Lys	Ala	Ala	Arg 565	Glu	Thr	Lys	Ile	Leu 570	Leu	Asp	His	Glu	Lys 575	Glu
rp	Lys	Leu	Gly 580	Arg	Cys	Ile	Leu	Arg 585	Phe	Pro	Glu	Ile	Leu 590	Gln	Lys
lle	Leu	Asp 595	Asp	Leu	Phe	Leu	His 600	Thr	Leu	Cys	Asp	туг 605	Ile	Tyr	Glu
Leu	Ala 610	Thr	Ala	Phe	Thr	Glu 615	Phe	Tyr	Asp	Ser	Cys 620	Tyr	Cys	Val	Glu
ГЛЗ	Asp	Arg	Gln	Thr	Gly	Lys	Ile	Leu	Lys	Val	Asn	Met	Trp	Arg	Met

625 630 635 640

Leu Leu Cys Glu Ala Val Ala Ala Val Met Ala Lys Gly Phe Asp Ile 645 650 655

Leu Gly Ile Lys Pro Val Gln Arg Met 660 . 665

<210> 594

<211> 116

<212> PRT

<213> Homo sapiens

<400> 594

Thr Val Thr Glu Thr Thr Val Thr Val Thr Thr Glu Pro Glu Asn Arg

1 5 10 15

Ser Leu Thr Ile Lys Leu Arg Lys Arg Lys Pro Glu Lys Lys Val Glu 20 25 30

Trp Thr Ser Asp Thr Val Asp Asn Glu His Met Gly Arg Arg Ser Ser 35 40 45

Lys Cys Cys Cys Ile Tyr Glu Lys Pro Arg Ala Phe Gly Glu Ser Ser 50 60

Thr Glu Ser Asp Glu Glu Glu Glu Glu Gly Cys Gly His Thr His Cys
65 70 75 80

Val Arg Gly His Arg Lys Gly Arg Arg Arg Ala Thr Leu Gly Pro Thr
85 90 95

Pro Thr Thr Pro Pro Gln Pro Pro Asp Pro Ser Gln Pro Pro Gly
100 105 110

Pro Met Gln His 115

<210> 595

<211> 294

<212> PRT

<213> Homo sapiens

<220>

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<222> (269)

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<40	0> 5	95													
			Arg	Val 5	Ser	Glu	Arg	Glu	Gly 10	Pro	Gly	Asp	Pro	Gln 15	Arç
Phe	Ser	Asp	His 20	Thr	Leu	Arg	Thr	Pro 25	Arg	Leu	Glu	Asp	Arg 30	Pro	Gly
Asp	Ala	Met 35	Trp	Gly	Glu	Gly	Leu 40	Arg	Ala	Trp	Cys	Arg 45	Phe	Val	Glu
Asn	Arg 50	Trp	Суѕ	Leu	Lys	Arg 55	Val	Ser	Ala	Pro	Leu 60	His	Leu	Gly	Leu
Leu 65	Gly	Cys	Pro	Asp	Ala 70	Glu	Ala	His	Phe	Pro 75	Ala	Met	Leu	Thr	Leu 80
Pro	Leu	Ser	Pro	Pro 85	Ser	Arg	Lys	Met	Ala 90	Thr	Asn	Phe	Leu	Ala 95	His
Glu	Lys	Ile	Trp 100	Phe	Asp	Lys	Phe	Lys 105	туг	Asp	Asp	Ala	Glu 110	Arg	Arg
Phe	туг	Glu 115	Gln	Met	Asn	Gly	Pro 120	Val	Ala	Gly	Ala	Ser 125	Arg	Gln	Glu
Asn	Gly 130	Ala	Ser	Val	Ile	Leu 135	Arg	Asp	Ile	Ala	Arg 140	Ala	Arg	Glu	Asn
Ile 145	Gln	Lys	Ser	Leu	Ala 150	Gly	Ser	Ser	Gly	Pro 155	Gly	Ala	Ser	Ser	Gly 160
Thr	Ser	Gly	Asp	His 165	Gly	Glu	Leu	Val	Val 170	Arg	Ile	Ala	Ser	Leu 175	Glu
Val	Glu	Asn	Gln 180	Ser	Leu	Arg	Gly	Val 185	Val	Gln	Glu	Leu	Gln 190	Gln	Ala
lle	Ser	Lys 195	Leu	Glu	Ala	Arg	Leu 200	Asn	Val	Leu	Glu	Lys 205	Ser	Ser	Pro
Sly	His 210	Arg	Ala	Thr	Ala	Pro 215	Gln	Thr	Gln	His	Val 220	Ser	Pro	Met	Arg
31n 225	Val	Glu	Pro	Pro	Ala 230	Lys	Lys	Pro	Ala	Thr 235	Pro	Ala	Glu	Asp	Asp 240

554

Glu Asp Asp Asp Ile Asp Leu Phe Gly Ser Asp Asn Glu Glu Glu Asp 245 250 255

Lys Glu Ala Ala Gln Leu Arg Glu Glu Arg Leu Arg Xaa Tyr Ala Glu 260 265 270

Lys Lys Ala Lys Lys Xaa Ala Leu Val Ala Lys Ser Ser Ile Leu Leu 275 280 285

Asp Phe Lys Pro Trp Gly

<210> 596

<211> 134

<212> PRT

<213> Homo sapiens

<400> 596

Val Ser Arg Leu Gly Leu Leu Thr Pro Leu Gly Cys Ser Phe Gly Thr
1 5 10 15

Asp Glu Trp Leu Cys Pro Val Thr Ala Leu Ser Leu Pro Gly Gly Tyr
20 25 30

Val His Ser Arg Pro Leu Pro Arg Leu Arg Pro Met Arg Tyr Gly Asp
35 40 45

Thr Leu Ala Pro Arg Ser Trp Arg His Arg Pro Leu Pro Trp His Ser 50 55 60

Ser Phe Ala Gly Asp Pro Pro Leu Pro Lys Ala Leu Ser Pro Cys Ser 65 70 75 80

His Ser Arg Arg Thr Ala Ala Arg Ala Ser Gly Ser Leu Ala Thr Gly
85 90 95

Phe Glu Arg Leu His Ser Trp Gly Leu Glu Gly Gly Val Pro Lys Ala 100 105 110

Leu Ser Lys Ser Gln Ser Ser Ser His Gln Ser Leu Tyr Lys Val Leu 115 120 125

Gly Pro Glu Ala Leu Pro 130

<210> 597

0 00/551/0

WO 00/55173 PCT/US00/05881

555

<211> 91

<212> PRT

<213> Homo sapiens

<400> 597

Glu Gly Pro Glu Gly Ala Asn Leu Phe Ile Tyr His Leu Pro Gln Glu
1 5 10 15

Phe Gly Asp Gln Asp Ile Leu Gln Met Phe Met Pro Phe Gly Asn Val 20 25 30

Ile Ser Ala Lys Val Phe Ile Asp Lys Gln Thr Asn Leu Ser Lys Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Gly Phe Val Ser Tyr Asp Asn Pro Val Ser Ala Gln Ala Ala Ile 50 55 60

Gln Ala Met Asn Gly Phe Gln Ile Gly Met Lys Arg Leu Lys Val Gln 65 70 75 80

Leu Lys Arg Ser Lys Asn Asp Ser Lys Pro Tyr
85

<210> 598

<211> 68

<212> PRT

<213> Homo sapiens

<400> 598

Arg Pro Thr Arg Pro Glu Lys Val Gly Ser Gly Gly Ser Ser Val Gly
1 5 10 15

Ser Gly Asp Ala Ser Ser Arg His His His Arg Arg Arg Phe 20 25 30

His Leu Pro Gln Gln Pro Leu Leu Gln Arg Glu Val Trp Cys Val Gly 35 40

Thr Thr Gly Asn Ala Asn Gln Ala Gln Ser Ser Thr Glu Gln Thr Leu 50 55 60

Leu Lys Pro Lys

65

<210> 599

<211> 119

<212> PRT

556

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<213> Homo sapiens
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<400> 599
Phe Gly Arg Asp Gln Val Tyr Leu Ser Tyr Asn Asn Val Ser Ser Leu
                  5
Lys Met Leu Val Ala Lys Asp Asn Trp Val Leu Ser Ser Glu Ile Ser
Gln Val Arg Leu Tyr Thr Leu Glu Asp Asp Lys Phe Leu Ser Phe His
                             40
Met Glu Met Val Val His Val Asp Ala Xaa Gln Ala Phe Leu Leu
     50
                         55
                                             60
Ser Asp Leu Xaa Gln Arg Pro Glu Trp Asp Lys His Tyr Arg Ser Val
                     70
Glu Leu Val Gln Gln Val Asp Xaa Gly Arg Arg His Leu Pro Arg His
                                     90
Gln Xaa Xaa Pro Arg Arg Ser His Lys Ala Pro Gly Leu Arg Asp Pro
            100
                                105
                                                    110
Gly Leu Glu Ala Glu Ala Leu
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<210> 600 <211> 177 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (69) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (135) <223> Xaa equals any of the naturally occurring L-amino acids Xaa Glu Arg Leu Arg Ala Gln Xaa Glu Lys Ser Arg Asp Ser Gln Pro Arg Leu Pro Leu Arg Phe Pro Ser Trp Arg Gly Pro Trp Cys Gly Ile 25 Glu Ile Ala Gly Tyr Gly Ala Glu Val Phe Arg Gln Tyr Trp Asp Ile 35 40 45 Pro Asp Gly Thr Asp Cys His Arg Lys Ala Tyr Ser Thr Thr Ser Ile 55 Ala Ser Val Ala Xaa Leu Thr Ala Ala Ala Tyr Arg Val Thr Leu Asn 70 65 75 Pro Pro Gly Thr Phe Leu Glu Gly Val Ala Lys Val Gly Gln Tyr Thr Phe Thr Ala Ala Ala Val Gly Ala Val Phe Gly Leu Thr Thr Cys Ile 105 Ser Ala His Val Arg Glu Lys Pro Asp Asp Pro Leu Asn Tyr Phe Leu

PCT/US00/05881

WO 00/55173

115 120 125 Gly Gly Cys Ala Gly Gly Xaa Thr Leu Gly Ala Arg Thr His Asn Tyr 135 Gly Ile Gly Ala Ala Ala Cys Val Tyr Phe Gly Ile Ala Ala Ser Leu Val Lys Met Gly Arg Leu Glu Gly Trp Glu Val Phe Ala Lys Pro Lys 170 Val <210> 601 <211> 218 <212> PRT <213> Homo sapiens Arg Gly Gly Gly Gly Ala Ser Ser Cys Cys Cys Ala Pro Ser Pro Arg Gly Arg Pro Val Pro Ala Arg Thr Pro Arg Arg Cys Pro Arg 25 Pro Ser Pro Gly Pro Ala Met Gly Leu Thr Val Ser Ala Leu Phe Ser 40 Arg Ile Phe Gly Lys Lys Gln Met Arg Ile Leu Met Val Gly Leu Asp . 55 Ala Ala Gly Lys Thr Thr Ile Leu Tyr Lys Leu Lys Leu Gly Glu Ile 70 Val Thr Thr Ile Pro Thr Ile Gly Phe Asn Val Glu Thr Val Glu Tyr 85 Lys Asn Ile Cys Phe Thr Val Trp Asp Val Gly Gln Asp Lys Ile 105 Arg Pro Leu Trp Arg His Tyr Phe Gln Asn Thr Gln Gly Leu Ile Phe 120 Val Val Asp Ser Asn Asp Arg Glu Arg Val Gln Glu Ser Ala Asp Glu 130 135

Leu Gln Lys Met Leu Gln Glu Asp Glu Leu Arg Asp Ala Val Leu Leu

155

559

Val Phe Ala Asn Lys Gln Asp Met Pro Asn Ala Met Pro Val Ser Glu 165 170 175

Leu Thr Asp Lys Leu Gly Leu Gln His Leu Arg Ser Arg Thr Trp Tyr
180 185 190

Val Gln Ala Thr Cys Ala Thr Gln Gly Thr Gly Leu Tyr Asp Gly Leu 195 200 205

Asp Trp Leu Ser His Glu Leu Ser Lys Arg 210 215

<210> 602

<211> 829

<212> PRT

<213> Homo sapiens

<220>

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<222> (32)

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<220>

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<222> (454)

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<400> 602

Pro Gly Gln Ala Gly Ala Glu Gly His Val Arg Cys Cys Pro Gly Glu
1 5 10 15

Glu Gln Lys Ala Gly Gly Glu Arg Arg Cys Pro Gly Pro Gln Arg Xaa 20 25 30

Gly Ala Ala Leu Gly Pro Gly Pro Gly Glu Ala Arg Leu Asp Tyr Ser 35 40 45

Glu Phe Phe Thr Glu Asp Val Gly Gln Leu Pro Gly Leu Thr Ile Trp 50 55 60

Gln Ile Glu Asn Phe Val Pro Val Leu Val Glu Glu Ala Phe His Gly
65 70 75 80

Lys Phe Tyr Glu Ala Asp Cys Tyr Ile Val Leu Lys Thr Phe Leu Asp 85 90 95

Asp Ser Gly Ser Leu Asn Trp Glu Ile Tyr Tyr Trp Ile Gly Glu
100 105 110

Ala	Thr	Leu 115	Asp	Lys	Lys	Ala	Cys 120	Ser	Ala	Ile	His	Ala 125	Val	Asn	Leu
Arg	Asn 130	Tyr	Leu ··	Gly	Ala	Glu 135	Cys	Arg	Thr	Val	Arg 140	Glu	Glu	Met	Gly
Asp 145	Glu	Ser	Glu	Glu	Phe 150	Leu	Gln	Val	Phe	Asp 155	Asn	Asp	Ile	Ser	Tyr 160
Ile	Glu	Gly	Gly	Thr 165	Ala	Ser	Gly	Phe	туг 170	Thr	Val	Glu	Asp	Thr 175	His
Tyr	Val	Thr	Arg 180	Met	Tyr	Arg	Val	Туг 185	Gly	Lys	Lys	Asn	Ile 190	Lys	Leu
Glu	Pro	Val 195	Pro	Leu	Lys	Gly	Thr 200	Ser	Leu	Asp	Pro	Arg 205	Phe	Val	Phe
Leu	Leu 210	Asp	Arg	Gly	Leu	Asp 215	Ile	Tyr	Val	Trp	Arg 220	Gly	Ala	Gln	Ala
Thr 225	Leu	Ser	Ser	Thr	Thr 230	Lys	Ala	Arg	Leu	Phe 235	Ala	Glu	Lys	Ile	Asn 240
Lys	Asn	Glu	Arg	Lys 245	Gly	Lys	Ala	Glu	11e 250	Thr	Leu	Leu	Val	Gln 255	Gly
Gln	Glu	Leu	Pro 260	Glu	Phe	Trp	Glu	Ala 265	Leu	Gly	Gly	Glu	Pro 270	Ser	Glu
Ile	Lys	Lys 275	His	Val	Pro	Glu	Asp 280	Phe	Trp	Pro	Pro	Gln 285	Pro	Lys	Leu
Tyr	Lys 290	Val	Gly	Leu	Gly	Leu 295	Gly	Tyr	Leu	Glu	Leu 300	Pro	Gln	Ile	Asn
Tyr 305	Lys	Leu	Ser	Val	Glu 310	His	rys	Gln	Arg	Pro 315	Lys	Val	Glu	Leu	Met 320
Pro	Arg	Met	Arg	Leu 325	Leu	Gln	Ser	Leu	Leu 330	Asp	Thr	Arg	Cys	Va1 335	Asn
Ile	Leu	Asp	Cys 340	Trp	Ser	Asp	Val	Phe 345	Ile	Trp	Leu	Gly	Arg 350	Lys	Ser
Pro	Arg	Leu 355	Val	Arg	Ala	Ala	Ala 360	Leu	Lys	Leu	Gly	Gln 365	Glu	Leu	Cys
Gly	Met 370	Leu	His	Arg	Pro	Arg 375	His	Ala	Thr	Val	Ser 380	Arg	Ser	Leu	Glu

Gly 385		Glu	Ala	Gln	Val 390	Phe	Lys	Ala	Lys	Phe 395	Lys	Asn	Trp	Asp	400
Val	Leu	Thr	Val	Asp 405	Tyr	Thr	Arg	Asn	Ala 410	Glu	Ala	Val	Leu	Gln 415	Ser
Pro	Gly	Leu	Ser 420	Gly	Lys	Val	Lys	Arg 425	Asp	Ala	Glu	Lys	Lys 430	Asp	Glr
Met	Lys	Ala 435	Asp	Leu	Thr	Ala	Leu 440	Phe	Leu	Pro	Arg	Gln 445	Pro	Pro	Met
Ser	Leu 450	Ala	Glu	Ala	Xaa	Gln 455	Leu	Met	Glu	Glu	Trp 460	Asn	Glu	Asp	Lev
Asp 465		Met	Glu	Gly	Phe 470	Val	Leu	Glu	Gly	Lys 475	Lys	Phe	Ala	Arg	180
Pro	Glu	Glu	Glu	Phe 485	Gly	His	Phe	Tyr	Thr 490	Gln	Asp	Cys	туr	Val 495	Phe
Leu	Cys	Arg	Туг 500	Trp	Val	Pro	Val	Glu 505	Tyr	Glu	:Glu	Glu	Glu 510	Lys	Lys
Glu	Asp	Lys 515	Glu	Glu	Lys	Ala	Glu 520	Gly	Lys	Glu	Gly	Glu 525	Glu	Ala	Thr
Ala	Glu 530	Ala	Glu	Glu	Lys	Gln 535	Pro	Glu	Glu	Asp	Phe 540	Gln	Cys	Ile	Val
Tyr 545	Phe	Trp	Gln	Gly	Arg 550	Glu	Ala	Ser	Asn	Met 555	Gly	Trp	Leu	Thr	Phe 560
Thr	Phe	Ser	Leu	Gln 565	Lys	Lys	Phe	Glu	Ser 570	Leu	Phe	Pro	Gly	Lys 575	Leu
Glu	Val	Val	Arg 580	Met	Thr	Gln	Gln	Gln 585	Glu	Asn	Pro	Lys	Phe 590	Leu	Ser
His	Phe	Lys 595	Arg	Lys	Phe	Ile	Ile 600	His	Arg	Gly	Lys	Arg 605	Lys	Ala	Val
Gln	Gly 610	Ala	Gln	Gln		Ser 615	Leu	Tyr	Gln	Ile	Arg 620	Thr	Asn	Gly	Ser
Ala 625	Leu	Суз	Thr	Arg	Cys 630	Ile	Gln	Ile	Asn	Thr 635	Asp	Ser	Ser	Leu	Leu 640
Asn	Ser	Glu	Phe	Cys 645	Phe	Ile	Leu	Lys	Val 650	Pro	Phe	Glu	Ser	Glu 655	Asp

562

Asn	Gln	Gly	11e 660	Val	Туr	Ala	Trp	Val 665	Gly	Arg	Ala	Ser	Asp 670	Pro	Ası
Glu	Ala	Lys 675	Leu	Ala	Glu	Asp	Ile 680	Leu	Asn	Thr		Phe .685	Asp	Thr	Se
Tyr	Ser 690	Lys	Gln	Val	Ile	Asn 695	Glu	Gly	Glu	Glu	Pro 700	Glu	Asn	Phe	Phe
Trp 705	Val	Gly	Ile	Gly	Ala 710	Gln	Lys	Pro	туг	Asp 715	Asp	Asp	Ala	Glu	Ту: 720
Met	Lys	His	Thr	Arg 725	Leu	Phe	Arg	Cys	Ser 730	Asn	Glu	Lys	Gly	Tyr 735	Phe
Ala	Val	Thr	Glu 740	Lys	Cys	Ser	Asp	Phe 745	Cys	Gln	Asp	Asp	Leu 750	Ala	Ası
Asp	Asp	Ile 755	Met	Leu	Leu	Asp	Asn 760	Gly	Gln	Glu	Val	Tyr 765	Met	Trp	Va:
Gly	Thr 770	Gln	Thr	Ser	Gln	Val 775	Glu	Ile	Lys	Leu	Ser 780	Leu	Lys	Ala	Cys
Gln 785	Val	Tyr	Ile	Gln	His 790	Met	Arg	Ser	Lys	Glu 795	His	Glu	Arg	Pro	Arç 800
Arg	Leu	Arg	Leu	Val 805	Arg	Lys	Gly	Asn	Glu 810	Gln	His	Ala	Phe	Thr 815	Arg
Сув	Phe	His	Ala 820	Trp	Ser	Ala	Phe	Cys 825	Lys	Ala	Leu	Ala			
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<211> 221

<212> PRT

<213> Homo sapiens

<400> 603

Thr Glu Pro Pro Leu Ser Cys Cys Leu Pro Ala Thr Tyr Pro Ala Asp 1 5 10 15

Met Gly Thr Ala Gly Ala Met Gln Leu Cys Trp Val Ile Leu Gly Phe 20 25 30

Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr Gln Thr Ser 35 40 45

PCT/US00/05881 WO 00/55173

Ser Ser Gln Gly Gly Leu Gly Gly Leu Ser Leu Thr Thr Glu Pro Val 55 Ser Ser Asn Pro Gly Tyr Ile Pro Ser Ser Glu Ala Asn Arg Pro Ser 75 His Leu Ser Ser Thr Gly Thr Pro Gly Ala Gly Val Pro Ser Ser Gly 90 Arg Asp Gly Gly Thr Ser Arg Asp Thr Phe Gln Thr Val Pro Pro Asn 100 105 Ser Thr Thr Met Ser Leu Ser Met Arg Glu Asp Ala Thr Ile Leu Pro 120 Ser Pro Thr Ser Glu Thr Val Leu Thr Val Ala Ala Phe Gly Val Ile 130 135 Ser Phe Ile Val Ile Leu Val Val Val Ile Ile Leu Val Gly Val 150 155 Val Ser Leu Arg Phe Lys Cys Arg Lys Ser Lys Glu Ser Glu Asp Pro 165 170 Gln Lys Pro Gly Ser Ser Gly Leu Ser Glu Ser Cys Ser Thr Ala Asn 180 185 Gly Glu Lys Asp Ser Ile Thr Leu Ile Ser Met Lys Asn Ile Asn Met 200 Asn Asn Gly Lys Gln Ser Leu Ser Ala Glu Lys Val Leu 210 215 <210> 604

<211> 97

<212> PRT

<213> Homo sapiens

<400> 604

Ser Cys Gly Leu Ser Leu Ile Lys Met Thr Thr Ser Gln Lys His Arg

Asp Phe Val Ala Glu Pro Met Gly Glu Lys Pro Val Gly Ser Leu Ala

Gly Ile Gly Glu Val Leu Gly Lys Lys Leu Glu Glu Arg Gly Phe Asp

Lys Ala Tyr Val Val Leu Gly Gln Phe Leu Val Leu Lys Lys Asp Glu

564

50 55 60

Asp Leu Phe Arg Glu Trp Leu Lys Asp Thr Cys Gly Ala Asn Ala Lys 65 70 75 80

Gln Ser Arg Asp Cys Phe Gly Cys Leu Arg Glu Trp Cys Asp Ala Phe 85 90 95

Leu

<210> 605

<211> 266 <212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 605

Gly Pro Arg Arg Leu Gly Ala Leu His Ala Ala Ala Thr Gly Ala Arg
1 5 10 15

Cys Leu Val Glu Leu Leu Val Ala His Gly Ala Asp Leu Asn Ala Lys 20 25 30

Ser Leu Met Asp Glu Thr Pro Leu Asp Val Cys Gly Asp Glu Glu Val
35 40 45

Arg Ala Lys Leu Leu Glu Leu Lys His Lys His Asp Ala Leu Leu Arg 50 55 60

Ala Gln Ser Arg Gln Arg Ser Leu Leu Arg Arg Arg Thr Ser Ser Ala 65 70 75 80

Gly Ser Arg Xaa Lys Val Val Arg Arg Val Ser Leu Thr Gln Arg Thr 85 90 95

Asp Leu Tyr Arg Lys Gln His Ala Gln Glu Ala Ile Val Trp Gln Gln 100 105 110

Pro Pro Pro Thr Ser Pro Glu Pro Pro Glu Asp Asn Asp Asp Gln
115 120 125

Thr Gly Ala Glu Leu Arg Pro Pro Pro Glu Glu Asp Asn Pro Glu 130 135 140

Val Val Arg Pro His Asn Gly Arg Val Gly Gly Ser Pro Val Arg His 145 Leu Tyr Ser Lys Arg Leu Asp Arg Ser Val Ser Tyr Gln Leu Ser Pro 165 170 Leu Asp Ser Thr Thr Pro His Thr Leu Val His Asp Lys Ala His His 185 Thr Leu Ala Asp Leu Lys Arg Gln Arg Ala Ala Lys Leu Gln Arg 200 Pro Pro Pro Glu Gly Pro Glu Ser Pro Glu Thr Ala Glu Pro Gly Leu 215 Pro Gly Asp Thr Val Thr Pro Gln Pro Asp Cys Gly Phe Arg Ala Gly 230 235 Gly Asp Pro Pro Leu Leu Lys Leu Thr Ala Pro Ala Val Glu Ala Pro 250 Val Glu Arg Arg Pro Cys Cys Leu Leu Met 260 <210> 606 <211> 331 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (91) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (285) <223> Xaa equals any of the naturally occurring L-amino acids His Asp Ser Cys Phe Val Glu Met Gln Ala Gln Lys Val Met His Val Ser Ser Ala Glu Leu Asn Tyr Ser Leu Pro Tyr Asp Ser Lys His Gln 25 Ile Arg Asn Ala Ser Asn Val Lys His His Asp Ser Ser Ala Leu Gly

40

Val	Tyr 50	Ser	Tyr	Ile	Pro	Leu 55	Val	Glu	Asn	Pro	Tyr 60	Phe	Ser	Ser	Trp
Pro 65	Pro	Ser	Gly	Thr	Ser 70	Ser	Lys	Met	Ser	Leu 75	Asp	Leu	Pro	Glu	Lys 80
Gln	Asp	Gly	Thr	Val 85	Phe	Pro	Ser	Ser	Leu 90	Xaa	Pro	Thr	Ser	Ser 95	Thr
Ser	Leu	Phe	Ser 100	Tyŗ	Tyr	Asn	Ser	His 105	Asp	Ser	Leu	Ser	Leu 110	Asn	Ser
	Thr	115					120					125			
	Ala 130					135					140				
145	Pro				150					155	_				160
	Val			165					170	-		_		175	
	Leu		180					185					190		
	Ile	195				•	200		•			205		_	
	Leu 210					215					220				
225	Leu				230			-		235					240
	Ile			245				-	250	_				255	
	Ser		260				-	265					270		_
	Lys	275		_			280					285			
	Cys 290					295					300				
Ser 305	Ser	Phe	Leu	Asn	Phe 310	Gly	Phe	Ala	Asn	Arg 315	Phe	Ser	Lys	Pro	Lys 320

Gly Pro Arg Asn Pro Pro Pro Thr Trp Asn Ile 325 330

<21 <21	0> 6 1> 1 2> P 3> H	92 RT	sapi	ens											
<22															
	1> S 2> (
	•	•	qual	s an	y of	the	nati	ural	ly o	ccur:	ring	L-a	mino	acio	is
<40	0> 6	07													
Ala 1	Ala	Pro	Ser	Glu 5	Pro	Lys	Ala	Arg	Gly 10	Gly	His	Gly	Gly	Ala 15	Leu
Ala	Arg	Leu	Glu 20	Thr	Met	Pro	Lys	Leu 25	Gln	Gly	Phe	Glu	Phe 30	Trp	Ser
Arg	Thr	Leu 35	Arg	Gly	Ala	Arg	His 40	Val	Val	Ala	Pro	Met 45	Val	Asp	Gln
Ser	Glu 50	Leu	Ala	Trp	Arg	Leu 55	Leu	Ser	Arg	Arg	His 60	Gly	Ala	Gln	Leu
Cys 65	туг	Thr	Pro	Met	Leu 70	His	Ala	Gln	Val	Phe 75	Val	Arg	Xaa	Ala	Asn 80
Tyr	Arg	Lys	Glu	Asn 85	Leu	Tyr	Cys	Glu	Val 90	Суѕ	Pro	Glu	Asp	Arg 95	Pro
Leu	Ile	Val	Gln 100	Phe	Суз	Ala	Asn	Asp 105	Pro	Glu	Val	Phe	Val 110	Gln	Ala
Ala	Leu	Leu 115	Ala	Gln	Asp	туг	Cys 120	Asp	Ala	Ile	Asp	Leu 125	Asn	Leu	Gly
Cys	Pro 130	Gln	Met	Ile	Ala	Lys 135	Arg	Gly	His	туг	Gly 140	Ala	Phe	Leu	Gln
Asp 145	Glu	Trp	Asp	Leu	Leu 150	Gln	Arg	Met	Ile	Leu 155	Leu	Ala	His	Glu	Lys 160
Leu	Ser	Val	Pro	Val 165	Thr	Cys	Lys	Ile	Arg 170	Val	Phe	Pro	Glu	Ile 175	Asp
Lys	Thr	Val	Ser	Thr	Pro	Arg	Cys	Trp	Arg	Arg	Pro	Ala	Ala	Ser	Cys

185

190

<21	0> 6 1> 4	15													
<21	2> P	RT													
<21	3> H	omo :	sapi	ens											
	0> 6														
His	Ile	Lys	Cys	Pro	His	Ser	Lys	Tyr	Gly	Cys	Thr	Phe	Ile	Gly	Asr
1				5					10					15	
Gln	Asp	Thr	Tyr	Glu	Thr	His	Leu	Glu	Thr	Cys	Arg	Phe	Glu	Gly	Leu
	_		20					25		_	_		30	_	
ī.vs	Glu	Phe	Leu	Gln	Gln	Thr	Asn	Asp	Ara	Phe	His	Glu	Met	His	Va 1
-,-		35			02		40		**** 5			45			
		33					40					7.7			
21-	T ou	N 1 -	Cl-	T	3 o o	Cl.	C1	T10	710	Dho	t ou	A ===	50-	Mot	T 01
MIG		wra	GIII	туз	Asp		GIU	116	AId	Pne		Arg	261	Mec	Let
	50					55					60				
_				_		_		_		_				_	
_	Lys	Leu	Ser	Glu	Lys	He	Asp	Gln	Leu		Lys	Ser	Leu	Glu	
65					70					75					80
Lys	Phe	Asp	Val	Leu	Asp	Glu	Asn	Gln	Ser	Lys	Leu	Ser	Glu	Asp	Leu
				85					90					95	
Met	Glu	Phe	Arg	Arg	Asp	Ala	Ser	Met	Leu	Asn	Asp	Glu	Leu	Ser	His
			100					105					110		
Ile	Asn	Ala	Arq	Leu	Asn	Met	Gly	Ile	Leu	Gly	Ser	Tyr	Asp	Pro	Glr
		115	_				120			•		125	•		
Gln	Tle	Phe	T.vs	Cvs	Lys	Glv	Thr	Phe	Val	Glv	His	Gln	Glv	Pro	۷a۱
U 1	130	1	2,5	0 10	٠,٠	135		1	vul	019	140	01	017	110	• • • •
	130					133		•			140				
	C	T	C	1703	m		14-4	~1		*	*	Dh.	c	c1	C
_	cys	Leu	cys	Vai	Tyr	ser	met	GIÀ	Asp		Leu	Pne	ser	сту	
145					150					155					160
Ser	Asp	Lys	Thr		Lys	Val	Trp	Asp		Сув	Thr	Thr	Tyr	-	Cys
				165					170					175	
Gln	Lys	Thr	Leu	Glu	Gly	His	Asp	Gly	Ile	Val	Leu	Ala	Leu	Cys	Ile
			180					185					190		
Gln	Gly	Cys	Lys	Leu	Tyr	Ser	Glv	Ser	Ala	Asp	Cys	Thr	Ile	Ile	Val
	•	195	-		-		200			•	_	205			

Trp Asp Ile Gln Asn Leu Gln Lys Val Asn Thr Ile Arg Ala His Asp 215 Asn Pro Val Cys Thr Leu Val Ser Ser His Asn Val Leu Phe Ser Gly 225 230 235 Ser Leu Lys Ala Ile Lys Val Trp Asp Ile Val Gly Thr Glu Leu Lys Leu Lys Lys Glu Leu Thr Gly Leu Asn His Trp Val Arg Ala Leu Val 260 265 Ala Ala Gln Ser Tyr Leu Tyr Ser Gly Ser Tyr Gln Thr Ile Lys Ile 280 Trp Asp Ile Arg Thr Leu Asp Cys Ile His Val Leu Gln Thr Ser Gly 295 Gly Ser Val Tyr Ser Ile Ala Val Thr Asn His His Ile Val Cys Gly 310 Thr Tyr Glu Asn Leu Ile His Val Trp Asp Ile Glu Ser Lys Glu Gln 330 Val Arg Thr Leu Thr Gly His Val Gly Thr Val Tyr Ala Leu Ala Val 340 345 Ile Ser Thr Pro Asp Gln Thr Lys Val Phe Ser Ala Ser Tyr Asp Arg 360 Ser Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu 375 Leu Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg 385 390 395 400 Leu Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys 405 410

<210> 609

<211> 48

<212> PRT

<213> Homo sapiens

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<210> 610 <211> 241

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<400> 610
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571

Xaa 1	Asp	Xaa	Gly	Arg 5	Pro	Xaa	Arg	Thr	Ala 10	Glu	Ser	Xaa	Phe	Gly 15	Ile
Asn	Leu	Lys	Gly 20	Pro	Lys	Ile	Lys	Gly 25	Gly	Ala	Asp	Val	Ser 30	Gly	Gly
Val	Ser	Ala 35	Pro	Xaa	Ile	Ser	Leu 40	Gly	Glu	Gly	His	Leu 45	Ser	Val	Lys
Gly	Ser 50	Gly	Gly	Glu	Trp	Lys 55	Gly	Pro	Gln	Val	Ser 60	Ser	Ala	Leu	Asn
Leu 65	Asp	Thr	Ser	Lys	Phe 70	Ala	Gly	Gly	Leu	His 75	Phe	Ser	Gly	Pro	Lys
Val	Glu	Gly	Gly	Val 85	Lys	Gly	Gly	Gln	Ile 90	Gly	Leu	Gln	Ala	Pro 95	Gly
Leu	Ser	Val	Ser 100	Gly	Pro	Gln	Gly	His 105	Leu	Glu	Ser	Gly	Ser 110	Gly	Lys
Val	Thr	Phe 115	Pro	Lys	Met	Lys	11e 120	Pro	Lys	Phe	Thr	Phe 125	Ser	Gly	Arg
	130		Gly			135	-		-		140			-	
Glu 145	Ala	Ser	Ile	Gln	Ala 150	Gly	Ala	Gly	Asp	Gly 155	Glu	Trp	Glu	Glu	Ser 160
Glu	Val	Lys	Leu	Lys 165	Lys	Ser	Lys	Ile	Lys 170	Met	Pro	Lys	Phe	Asn 175	Phe
Ser	Lys	Pro	Lys 180	Gly	Lys	Gly	Gly	Val 185	Thr	Gly	Ser	Pro	Glu 190	Ala	Ser
Ile	Ser	Gly 195	Ser	Lys	Gly	Asp	Leu 200	Lys	Ser	Ser	Lys	Ala 205	Ser	Leu	Gly
Ser	Leu 210	Glu	Gly	Glu	Ala	Glu 215	Ala	Glu	Ala	Ser	Ser 220	Pro	Lys	Gly	Lys
Phe 225	Ser	Leu	Phe	Lys	Ser 230	Lys	Lys	Pro	Arg	His 235	Arg	Cys	Lys	Phe	Ile 240

Gln

<211> 77 <212> PRT

<213> Homo sapiens

<400> 611

His Tyr Arg Arg Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser 1 5 10 15

Thr His Ala Ser Gly Val Ala Asp Gly Gly Gln Val Phe Leu Phe Pro 20 25 30

Glu Thr Gly Ser Val Gln Thr Ala Asn Ala His Arg Trp Pro Arg Gly
35 40 45

Gly Gly Ser Gln Gly Val Trp Val Phe Leu Gly Phe Phe Ser Val Val 50 60

Ser Phe Thr Gln Gly Trp Trp Ser Gln Pro Val Trp Cys
65 70 75

<210> 612

<211> 137

<212> PRT

<213> Homo sapiens

<400> 612

Leu Gln Val Pro Val Arg Asn Ser Gly Ser Pro Thr Arg Gln Ala Ala 1 5 10 15

Ala Met Thr Phe Cys Arg Leu Leu Asn Arg Cys Gly Glu Ala Ala Arg
20 25 30

Ser Leu Pro Leu Gly Ala Arg Cys Phe Gly Val Arg Val Ser Pro Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Glu Lys Val Thr His Thr Gly Gln Val Tyr Asp Asp Lys Asp Tyr 50 55 60

Arg Arg Ile Arg Phe Val Gly Arg Gln Lys Glu Val Asn Glu Asn Phe 65 70 75 80

Ala Ile Asp Leu Ile Ala Glu Gln Pro Val Ser Glu Val Glu Thr Arg 85 90 95

Val Ile Ala Cys Asp Gly Gly Gly Ala Leu Gly His Pro Lys Val 100 105 110

Tyr Ile Asn Leu Asp Lys Glu Thr Lys Thr Gly Thr Cys Gly Tyr Cys 115 120 125

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Gly Leu Gln Phe Arg Gln His His
    130
                        135
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<222> (105)
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<400> 613

Tyr Ser Thr Asp Asn Asn Asn Trp Tyr Ser Ile Phe Tyr Leu His

1 5 10 15

Ser Ser Phe Leu Gly Glu Asn Ala Glu Lys Leu Leu Gln Phe Lys Arg 20 25 30

Trp Phe Trp Ser Ile Val Glu Lys Met Ser Met Thr Glu Arg Gln Asp 35 40 45

Leu Xaa Tyr Phe Trp Thr Ser Ser Pro Ser Leu Pro Ala Ser Glu Glu 50

Gly Phe Gln Pro Met Pro Ser Ile Thr Ile Xaa Pro Pro Asp Asp Xaa 65 70 75 80

His Leu Pro Thr Xaa Lys Tyr Leu His Phe Leu Asp Phe Thr Phe Pro 85 90 95

Leu Xaa Ser Phe Lys Gln Asp Ser Xaa Asn Arg Lys Leu Val Xaa Ser 100 105 110

Pro Phe Arg Xaa Gln Lys Phe Trp Val Leu 115 120

<210> 614

<211> 62

<212> PRT

<213> Homo sapiens

<400> 614

Phe Phe Ile Gly Leu Glu Thr Arg Ala Asn Ser Ile Met Phe Ser Lys

1 10 15

Glu Thr Asp Leu Ser Cys Trp Ile Arg Gly Thr Asn Pro Thr Tyr Met 20 25 30

Ile Phe Phe Leu Phe Leu Ser Cys Ser Tyr Gly Thr Val Leu Phe Gly 35 40

Thr Phe Ala Thr Arg Asp Asn Thr Thr Phe Leu Thr Leu Ile 50 60

<210> 615

<211> 159

<212> PRT

<213> Homo sapiens

<400> 615 Val Gly Leu Pro Asn Met Ala Gln Ser Ile Asn Ile Thr Glu Leu Asn 10 Leu Pro Gln Leu Glu Met Leu Lys Asn Gln Leu Asp Gln Glu Val Glu 20 25 Phe Leu Ser Thr Ser Ile Ala Gln Leu Lys Val Val Gln Thr Lys Tyr 40 Val Glu Ala Lys Asp Cys Leu Asn Val Leu Asn Lys Ser Asn Glu Gly 55 Lys Glu Leu Leu Val Pro Leu Thr Ser Ser Met Tyr Val Pro Gly Lys Leu His Asp Val Glu His Val Leu Ile Asp Val Gly Thr Gly Tyr Tyr 90 Val Glu Lys Thr Ala Glu Asp Ala Lys Asp Phe Phe Lys Arg Lys Ile 100 105 Asp Phe Leu Thr Lys Gln Met Glu Lys Ile Gln Pro Ala Leu Gln Glu 120 Lys His Ala Met Lys Gln Ala Val Met Glu Met Met Ser Gln Lys Ile 130 135 Gln Gln Leu Thr Ala Leu Gly Ala Ala Gln Ala Thr Ala Lys Ala 150 155 <210> 616 <211> 93 <212> PRT <213> Homo sapiens

<220>
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<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 616
Lys Val Ala Cys Arg Tyr Arg Xaa Gly Ile Pro Gly Arg Pro Thr Arg
1 5 10 15

Pro Gly Thr Gln Asp Ala Glu Gly Lys Lys Ala Lys Gly Lys Lys Val
20 25 30

Ala Pro Ala Pro Ala Val Val Lys Lys Gln Glu Ala Lys Lys Val Val 35 40 45

Asn Pro Leu Phe Glu Lys Arg Pro Lys Asn Phe Gly Ile Gly Gln Asp 50 60

Ile Gln Pro Lys Arg Asp Leu Thr Arg Phe Val Lys Trp Pro Arg Tyr 65 70 75 80

Ile Arg Leu Gln Arg His Ala Arg Ser Ser Thr Ser Gly

<210> 617

<211> 362

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (307)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 617

Ser Arg Val Asp Pro Arg Val Arg Arg Gly Val Pro Tyr Gln Leu Gly
1 5 10 15

Pro His Gly His Arg Gln Gly Leu Glu Ala Pro Leu Tyr Leu Thr Pro 20 25 30

Glu Gly Trp Ser Leu Phe Leu Gln Arg Tyr Tyr Gln Val Val His Glu 35 40 45

Gly Ala Glu Leu Arg His Leu Asp Thr Gln Val Gln Arg Cys Glu Asp 50 55 60

Ile Leu Gln Gln Leu Gln Ala Val Val Pro Gln Ile Asp Met Glu Gly 65 70 75 80

Asp Arg Asn Ile Trp Ile Val Lys Pro Gly Ala Lys Ser Arg Gly Arg 85 90 95

Gly Ile Met Cys Met Asp His Leu Glu Glu Met Leu Lys Leu Val Asn 100 105 110

Gly Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr 115 120 125

Ile Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln 130 135 140

Trp 145	Phe	Leu	Val	Thr	Asp 150	Trp	Asn	Pro	Leu	Thr 155	Val	Trp	Phe	Tyr	Arg 160
Asp	Ser	Tyr	Ile	Arg 165	Phe	Ser	Thr	Gln	Pro 170	Phe	Ser	Leu	Lys	Asn 175	Leu
Asp	Asn	Ser	Val 180	His	Leu	Cys	Asn	Asn 185	Ser	Ile	Gln	Lys	His 190	Leu	Glu
Asn	Ser	Cys 195	His	Arg	His	Pro	Leu 200	Leu	Pro	Pro	Asp	Asn 205	Met	Trp	Ser
Ser	Gln 210	Arg	Phe	Gln	Ala	His 215	Leu	Gln	Glu	Met	Gly 220	Ala	Pro	Asn	Ala
Trp 225	Ser	Thr	Ile	Ile	Val 230	Pro	Gly	Met	Lys	Asp 235	Ala	Val	Ile	His	Ala 240
Leu	Gln	Thr	Ser	Gln 245	Asp	Thr	Val	Gln	Cys 250	Arg	Lys	Ala	Ser	Phe 255	Glu
Leu	Tyr	Gly	Ala 260	Asp	Phe	Val	Phe	Gly 265	Glu	Asp	Phe	Gln	Pro 270	Trp	Leu
Ile	Glu	Ile 275	Asn	Ala	Ser	Pro	Thr 280	Met	Ala	Pro	Ser	Thr 285	Ala	Val	Thr
Ala	Arg 290	Leu	Cys	Ala	Gly	Val 295	Gln	Ala	Asp	Thr	Leu 300	Arg	Val	Val	Ile
Asp 305	Arg	Xaa	Leu	Asp	Arg 310	Asn	Cys	Asp	Thr	Gly 315	Ala	Phe	Glu	Leu	11e 320
Tyr	Lys	Gln	Pro	Ala 325	Val	Glu	Val	Pro	Gln 330	Tyr	Val	Gly	Ile	Arg 335	Leu
Leu	Val	Glu	Gly 340	Phe	Thr	lle	Lys	Lys 345	Pro	Met	Ala	Met	Cys 350	His	Arg
Arg	Met	Gly 355	Val	Arg	Gln	Gln	Ser 360	Leu	Cys						

<210> 618

<211> 328

<212> PRT

<213> Homo sapiens

<400> 618

lle 1	Arg	Met	Arg	GIu 5	Trp	Trp	Val	Gln	Val 10	Gly	Leu	Leu	Ala	15	Pro
Leu	Leu	Ala	Ala 20	туr	Leu	His	Ile	Pro 25	Pro	Pro	Gln	Leu	Ser 30	Pro	Ala
Leu	His	Ser 35	Trp	Lys	Ser	Ser	Gly 40	Lys	Phe	Phe	Thr	Tyr 45	Lys	Gly	Leu
Arg	Ile 50	Phe	Tyr	Gln	Asp	Ser 55	Val	Gly	Val	Val	Gly 60	Ser	Pro	Glu	Ile
65				His	70					75					80
			_	Leu 85					90					95	
			100	Gly				105					110		
		115		Ala			120					125			
	130			Arg		135					140				
145				Leu	150					155					160
				Ser 165					170					175	
			180	Leu				185					190		
		195		Leu			200					205			
	210			Val		215					220				
225				Trp	230					235					240
				Leu 245					250					255	
Arg	Trp	Val	Gly 260	Ala	Leu	Ala	Ser	Val 265	Thr	Ile	Pro	Ile	His 270	Phe	Ile

579

Tyr Gly Pro Leu Asp Pro Val Asn Pro Tyr Pro Glu Phe Leu Glu Leu 275 280 285

Tyr Arg Lys Thr Leu Pro Arg Ser Thr Val Ser Ile Leu Asp Asp His 290 295 300

Ile Ser His Tyr Pro Gln Leu Glu Asp Pro Met Gly Phe Leu Asn Ala 305 310 315 320

Tyr Met Gly Phe Ile Asn Ser Phe 325

<210> 619

<211> 271

<212> PRT

<213> Homo sapiens

<400> 619

Asn Met Asp Pro Pro Gly Leu Gln Gly Val Gln Gly Thr Val Ala Ala 1 5 10 15

Cys Gly Ala Cys Tyr Trp Leu Leu Gly Leu Met Ala Val Arg Ala Ser 20 25 30

Phe Glu Asn Asn Cys Glu Ile Gly Cys Phe Ala Lys Leu Thr Asn Thr 35 40 45

Tyr Cys Leu Val Ala Ile Gly Gly Ser Glu Asn Phe Tyr Ser Val Phe 50 55 60

Glu Gly Glu Leu Ser Asp Thr Ile Pro Val Val His Ala Ser Ile Ala 65 70 75 80

Gly Cys Arg Ile Ile Gly Arg Met Cys Val Gly Asn Arg His Gly Leu 85 90 95

Leu Val Pro Asn Asn Thr Thr Asp Gln Glu Leu Gln His Ile Arg Asn 100 105 110

Ser Leu Pro Asp Thr Val Gln Ile Arg Arg Val Glu Glu Arg Leu Ser 115 120 125

Ala Leu Gly Asn Val Thr Thr Cys Asn Asp Tyr Val Ala Leu Val His 130 135 140

Pro Asp Leu Asp Arg Glu Thr Glu Glu Ile Leu Ala Asp Val Leu Lys 145 150 155 160

Val Glu Val Phe Arg Gln Thr Val Ala Asp Gln Val Leu Val Gly Ser

165 170 175

Tyr Cys Val Phe Ser Asn Gln Gly Gly Leu Val His Pro Lys Thr Ser 180 185 190

Ile Glu Asp Gln Asp Glu Leu Ser Ser Leu Leu Gln Val Pro Leu Val 195 200 205

Ala Gly Thr Val Asn Arg Gly Ser Glu Val Ile Ala Ala Gly Met Val 210 215 220

Val Asn Asp Trp Cys Ala Phe Cys Gly Leu Asp Thr Thr Ser Thr Glu 225 230 235 240

Leu Ser Val Val Glu Ser Val Phe Lys Leu Asn Glu Ala Gln Pro Ser 245 250 255

Thr Ile Ala Thr Ser Met Arg Asp Ser Leu Ile Asp Ser Leu Thr 260 265 270

<210> 620

<211> 88

<212> PRT

<213> Homo sapiens

<400> 620

Gly Ser Ala Ala Met Lys Val Lys Ile Lys Cys Trp Asn Gly Val Ala 1 5 10 15

Thr Trp Leu Trp Val Ala Asn Asp Glu Asn Cys Gly Ile Cys Arg Met 20 25 30

Ala Phe Asn Gly Cys Cys Pro Asp Cys Lys Val Pro Gly Asp Asp Cys 35 40 45

Pro Leu Val Trp Gly Gln Cys Ser His Cys Phe His Met His Cys Ile 50 55 60

Leu Lys Trp Leu His Ala Gln Gln Val Gln Gln His Cys Pro Met Cys
65 70 75 80

Arg Gln Glu Trp Lys Phe Lys Glu

<210> 621

<211> 46

<212> PRT

581

<213> Homo sapiens

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<220>
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<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 621
Ala Gly Thr Ser Arg Ser Glu Gly Lys Arg Ser Ser Val Leu Thr Arg
                                     10
Thr Glu Phe Gln Ile Glu Met Phe Gln Thr Ile Glu Gly Glu Lys Trp
             20
Pro Gly Xaa Ser Ile Asn Leu Ser Xaa Phe His Gly Cys Phe
                             40
<210> 622
<211> 103
<212> PRT
<213> Homo sapiens
<220>
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<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Arg Pro Thr Arg Pro Arg Gly Arg Gly Arg Ser Ser Ala Cys Leu
 1
Leu Leu Glu Gly Asp Gly Pro Ala Arg Leu Trp Ala Pro Thr Ser Pro
                                 25
Gly Val Xaa Xaa Glu Arg Phe Ala Glu Glu Arg Gly Ser Gly Arg Ala
         35
                             40
Leu Asn Ala Gly Pro Lys His Pro Gly Ser Leu His Ser Pro Arg Pro
                         55
```

Gln Thr Leu Thr Lys Thr Trp Ile Cys Ser Arg Phe Ser Cys Ser Arg 65 70 75 80

Ser Ser Arg Ser Cys Pro Arg Leu Leu Arg Leu Arg Ala Glu Lys Lys 85 90 95

Val Cys Gln Ala Trp Thr Gln 100

<210> 623

WO 00/55173

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring-L-amino acids

<400> 623

Gly Arg Pro Thr Arg Pro Thr Ser Ser Arg Ser Arg Ala Ala Arg Pro
1 5 10 15

Phe Phe Phe Phe Phe Phe Trp Phe Pro Glu Phe Gly Phe Ile Leu 20 25 30

Gln Tyr Arg Asn His Leu Glu Pro Ser Glu Thr Asp Ile Pro Glu Ala 35 40 45

Glu Ala Leu Ser Asn Gln Tyr Cys Val Ala Leu Xaa Pro Leu Arg Lys 50 55 60

Pro His Leu Gly Tyr Lys Arg Ser Phe Tyr Val Tyr Pro Leu Tyr His 65 70 75 80

Gly Phe Leu Ser Pro Leu Leu Leu Pro Ile Leu Pro Gly Glu Asn Thr 85 90 95

Ala Gln Arg Leu Pro Ser Glu 100

<210> 624

<211> 305

<212> PRT

<213> Homo sapiens

<220)>														
<221	l> s:	ITE													
<222	?> (116)													
<223	3> Xa	aa e	quals	s any	y of	the	nati	ıral	ly o	ccur	ring	L-ar	nino	acio	is
<220)>						٠.								
<221	l> S	ITE													
<222	2> (1	117)													
<223	> X	aa e	quals	з апу	y of	the	nati	ral	Ly o	ccur	ring	L-ar	nino	acio	is
					-				-		_				
<220)>														
<221	.> S	ITE													
<222	!> (2	219)													
	•	•	guals	s an	v of	the	nati	ıral	Lv o	ccur	cina	L-ar	nino	acio	ds
			· · · · · ·												
<400	> 62	2.4													
			Leu	Tro	Met	Ser	Cvs	Pro	Va 1	Gln	Thr	Met.	Asp	Pro	Glu
1	U			5			-1-		10					15	
•				_											
Val	Thr	Len	Len	Len	Gla	Cvs	Pro	Glv	Glv	Glv	ī.eu	Pro	Gln	Glu	Gln
VAI	1111	БСи	20	Dea	OI!!	Cys	110	25	0.7.3	O1,	ВСС	120	30	010	
			20					23					50		
T10	Cl n	A 1 -	Clu	T 011	505	Dro	۸1 م	นเล	a e n	n ra	Ara	Pro	Leu	Pro	Glv
116	GIII		GIU	Leu	361	PIO	40	птэ	vəħ	ALY	nry	45	Deu	110	Gry
		35					40					43			
a 3		~1		T1-	mb		T1 -		61	mb	3	T 0	T	N 7 -	Cl.
GLY	-	GIU	Ala	ire	Thr		11e	Trp	GIU	Thr	_	Leu	Lys	Ala	GIII
	50					55					60				
	_	_			_ •	_	_			_	•	_			
	Trp	Leu	Phe	Asp		Pro	Lys	Phe	Arg		His	Ser	Ala	Thr	
65					70					75					80
Ala	Pro	Ile	Gly	Ser	Arg	Gly	Pro	Gln	Leu	Leu	Leu	Arg	Leu	_	Leu
				85					90					95	
Thr	Ser	Tyr	Arg	Asp	Phe	Leu	Gly	Thr	Asn	Trp	Ser	Ser	Ser	Ala	Ala
			100					105					110		
Trp	Leu	Arg	Xaa	Xaa	Gly	Ala	Thr	Asp	Trp	Gly	Asp	Thr	Gln	Ala	Tyr
		115					120					125			
Leu	Ala	Asp	Pro	Leu	Gly	Val	Gly	Ala	Ala	Leu	Ala	Thr	Ala	Asp	Asp
	130	•			-	135	-				140			_	_
Pho	Len	Va 1	Phe	Lev	Ara	Ara	Ser	Aro	Gln	Val	Ala	Glu	Ala	Pro	Glv
145				~~~	150	7		3	~*	155					160
147					130										
Leu	U = 1	200	va 1	Dro	Glv	G1 17	Hie	Dro	G3 is	Pro	Gln	Δla	T.e.v	Cve	Pro
rea	AGT	vaħ	val	165	GLY	GTÅ	1172	FIO	170	110	GIH	nia	Leu	175	110
				193					1/0					113	
C3	c1	e	Dro	C1-	u: ~	C1-	7.5-	T 6	31 -	c1	G1 ~	Lou	t/a1	tra 1	ui.
Gly	стА	ser		GIN	uta	GIU	qen		WTG	GTÅ	GTII	nea		val	urs
			180					185					190		

584

Glu Leu Phe Ser Ser Val Leu Gln Glu Ile Cys Asp Glu Val Asn Leu 200 Pro Leu Leu Thr Leu Ser Gln Pro Leu Leu Xaa Gly Ile Ala Arg Asn 210 215 Glu Thr Ser Ala Gly Arg Ala Ser Ala Glu Phe Tyr Val Gln Cys Ser 225 230 Leu Thr Ser Glu Gln Val Arg Lys His Tyr Leu Ser Gly Gly Pro Glu 245 250 Ala His Glu Ser Thr Gly Ile Phe Phe Val Glu Thr Gln Asn Val Arg Arg Leu Pro Glu Thr Glu Met Trp Ala Glu Leu Cys Pro Ser Pro Lys Ala Pro Ser Ser Ser Thr Thr Gly Phe Arg Glu Val Pro Leu Glu Arg 295 300 Pro 305 <210> 625 <211> 102 <212> PRT <213> Homo sapiens Ser Ala Met Lys Ala Ser Gly Thr Leu Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro Lys Cys Arg Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn His Val Val Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys Lys Met Lys Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe Glu Lys Ser Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr Asp Ser Arg Ser Gly Thr His Asn Met Tyr

Arg Gly Val Pro Gly Thr

<210> 626

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

Ala Leu Trp Val Lys Ala Trp Arg Gln Glu Ser Glu Gly Gln Phe Gln

Glu Thr Gln Phe Ile Asn Phe His Gln His Leu Pro Gly Pro Cys Leu 25

Gly Thr Glu Xaa Pro Ser Pro Glu Ser Gly His His Phe Pro Phe Gln 40

Ser Ile Glu Cys Arg Gly Ile Gln Gly Met Gly 55 50

<210> 627

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 627

Arg Leu Val Val Thr Glu Glu Asp Gly Gly Ala Arg Pro Glu Ala Leu 10 5

Gly Lys Ile Ala Pro Arg Thr Pro Ala Glu Leu Gly Ala Arg Ala Asp 25

.Gln Glu Leu Val Thr Ala Leu Met Cys Asp Leu Arg Arg Pro Ala Ala 40

Gly Gly Met Met Asp Leu Ala Tyr Val Cys Glu Trp Glu Lys Trp Ser

55 Lys Ser Thr His Cys Pro Ser Val Pro Leu Ala Cys Ala Trp Ser Cys 70 75 Arg Asn Leu Ile Ala Phe Thr Met Asp Leu Arg Thr Xaa Asp Gln Asp 85 Leu Thr Arg Met Ile His Ile Leu Asp Thr Glu His Pro Trp Asp Leu 105 His Ser Ile Pro Ser Glu His His Glu Ala Ile Thr Cys Leu Glu Trp Asp Gln Ser Gly Ser Arg Leu Leu Ser Ala Asp Ala Asp Gly Gln Ile Lys Cys Trp Ser Met Ala Asp His Leu Ala Asn Ser Trp Glu Ser Ser 150 155 Val Gly Ser Leu Val Glu Gly Asp Pro Ile Val Ala Leu Ser Trp Leu 170 165 His Asn Gly Val Lys Leu Ala Leu His Val Glu Lys Ser Gly Ala Ser 185 Ser Phe Gly Glu Lys Phe Ser Arg Val Lys Phe Ser Pro Val Leu Thr 195 200 205 Leu Phe Gly Gly Lys Pro Trp Arg Ala Gly Ser Arg 215 <210> 628 <211> 119 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

Pro Ala Ser Val Glu Val Tyr His Asp Ser Leu Cys Arg Lys Ile Trp

<222> (117)

<400> 628

587

. 5 10 15 Arg Glu Asp Asp Lys Trp His Val Ile Phe Arg Ala Asp Gly Trp Glu 20 25 Gln His Ile Thr Ala Arg Tyr Leu Val Gly Ala Asp Gly Ala Asn Ser Met Val Arg Arg His Leu Tyr Pro Asp His Gln Ile Arg Lys Tyr Val Ala Ile Gln Gln Trp Phe Ala Glu Lys His Pro Val Pro Phe Tyr Ser 65 70 75 Cys Ile Phe Asp Asn Ser Ile Thr Asn Cys Tyr Ser Trp Ser Ile Ser Lys Asp Gly Tyr Phe Ile Phe Gly Gly Ala Tyr Pro Met Glu Arg Arg 105 Ser Asp Xaa Phe Xaa Asp Ala 115 <210> 629 <211> 39 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <400> 629 Phe Gly Glu Pro Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr 5 1 Ser Ile Val Ser Met Leu Thr Thr Cys Arg Tyr Ser Leu Xaa Xaa His

25

Met Lys Lys Val Ser Ser Cys

<21	0> 6: 1> 2: 2> Pi	67													
			sapi	ens											
<400)> 6:	30													
Ser 1	Ala	Ala	Leu	Pro 5	Gln	Pro	Thr	Pro	Pro 10	Leu	Thr	Leu	Pro	Gln 15	Ser
Met	Val	Asn	Thr 20	Lys	Pro	Glu	Lys	Thr 25	Glu	Glu	Asp	Ser	Glu 30	Glu	Val
Arg	Glu	Gln 35	Lys	His	Lys	Thr	Phe 40	Val	Glu	Lys	Tyr	Glu 45	Lys	Gln	Ile
Lys	His 50	Phe	Gly	Met	Leu	Arg 55	Arg	Trp	Asp	Asp	Ser 60	Gln	Lys	Tyr	Leu
Ser 65	Asp	Asn	Val	His	Leu 70	Val	Cys	Glu	Glu	Thr 75	Ala	Asn	Tyr	Leu	Val 80
Ile	Trp	Cys	Ile	Asp 85	Leu	Glu	Val	Glu	Glu 90	Lys	Cys	Ala	Leu	Met 95	Glu
Gln	Val	Ala	His 100	Gln	Thr	Ile	Val	Met 105	Gln	Phe	Ile	Leu	Glu 110	Leu	Ala
Lys	Ser	Leu 115	Lys	Val	Asp	Pro	Arg 120	Ala	Cys	Phe	Arg	Gln 125	Phe	Phe	Thr
Lys	Ile 130	Lys	Thr	Ala	Asp	Arg 135	Gln	Tyr	Met	Glu	Gly 140	Phe	Asn	Asp	Glu
Leu 145	Glu	Ala	Phe	Lys	Glu 150	Arg	Val	Arg	Gly	Arg 155	Ala	Lys	Leu	Arg	11e 160
Glu	Lys	Ala	Met	Lys 165	Glu	Tyr	Glu	Glu	Glu 170	Glu	Arg	Lys	Lys	Arg 175	Leu
Gly	Pro	Gly	Gly 180	Leu	Asp	Pro	Val	Glu 185	Val	Tyr	Glu	Ser	Leu 190	Pro	Glu
Glu	Leu	Gln 195	Lys	Cys	Phe	Asp	val 200	Lys	Asp	Val	Gln	Met 205	Leu	Gln	Asp
Ala	11e 210	Ser	Lys	Met	Asp	Pro 215	Thr	Asp	Ala	Lys	Туг 220	His	Met	Gln	Arg
Cys 225	Ile	Asp	ser	Gly	Leu 230	Trp	Val	Pro	Asn	Ser 235	Lys	Ala	Ser	Glu	Ala 240

Lys Glu Gly Glu Glu Ala Gly Pro Gly Asp Pro Leu Leu Glu Ala Val
245 250 250

Pro Lys Thr Gly Asp Glu Lys Asp Val Ser Val
260 265

<210> 631

<211> 207

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 631

Pro Thr Gly Thr Gly Ser Gly Val Pro Gly Leu Gly Arg Asn Gly Gly
1 5 10 15

Arg Glu Gly Ala Pro Gly Thr Met Gly Leu Leu Thr Ile Leu Lys Lys 20 25 30

Met Lys Gln Lys Glu Arg Glu Leu Arg Leu Leu Met Leu Gly Leu Asp 35 40 45

Asn Ala Gly Lys Thr Thr Ile Leu Lys Lys Phe Asn Gly Glu Asp Ile 50 55 60

Asp Thr Ile Ser Pro Thr Leu Gly Phe Asn Ile Lys Thr Leu Glu His 65 70 75 80

Arg Gly Phe Lys Leu Asn Ile Trp Asp Val Gly Gln Lys Ser Leu 85 90 95

Arg Ser Tyr Trp Arg Asn Tyr Phe Glu Ser Thr Asp Gly Leu Ile Trp
100 105 110

Val Val Asp Ser Ala Asp Arg Gln Arg Met Gln Asp Cys Gln Arg Glu 115 120 125

Leu Gln Ser Leu Leu Val Glu Glu Arg Leu Ala Gly Ala Thr Leu Leu 130 135 140

Ile Phe Ala Asn Lys Gln Asp Leu Pro Gly Ala Leu Ser Ser Asn Ala 145 150 155 160

Ile Arg Glu Xaa Leu Glu Leu Asp Ser Ile Arg Ser His His Trp Cys

590

175 170 165 Ile Gln Gly Cys Ser Ala Val Thr Gly Glu Asn Leu Leu Pro Gly Ile 180 185 Asp Trp Leu Leu Asp Asp Ile Ser Ser Arg Ile Phe Thr Ala Asp 200 195 <210> 632 <211> 79 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (60) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (73) <223> Xaa equals any of the naturally occurring L-amino acids <400> 632 Lys Asn Asn Lys Lys Asp Gln Gln Asn Gly Ile Cys Ser His Thr Met Ile Lys Thr Tyr Leu Arg Thr Ala Leu Phe Met Gly Lys Arg Ser Leu 20 Ile Asp Ser Gln Phe His Arg Leu Tyr Arg Arg His Gly Leu Gly Arg Pro Gln Gly Asn Leu Xaa Ser Met Val Glu Gly Xaa Xaa Gly Ser Met 55

His His Leu His Trp Pro Glu Gln Xaa Glu Arg Glu Gln Ile Trp

70

<210)> 63	33													
<211	> 29	3													
<212	?> PI	RT													
<213	3> Ho	omo s	sapie	ens											
<220)>														
<223	l> S1	LTE													
	?> (2														
<223	3> Xa	aa ed	quals	s any	of	the	natu	ırall	Ly oc	ccuri	ring	L-an	nino	acıc	ls
<220)>														
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	?> {2														
<223	3> Xa	aa ed	quals	s any	of	the	natu	ırall	Ly o	ccuri	ring	L-an	nino	acid	ls
)> 63		_		_			_	~1		~ 3	•			Dh -
	Ser	Pro	Ser	Pro	Pro	Ala	Thr	Pro		GIn	GLY	Leu	ser		Pne
1				5					10					15	
m	ton	202	m	Phe	Λcn	Mat	Lau	ጥኒንም	Pro	Glu	Aen	Ser	Ser	Trp	Ala
TYL	Dea	361	20	rne	rap	1100	D-u	25		0		-	30		
			20												
Ala	Lvs	Ala	Pro	Gly	Ala	Ser	Ser	Arq	Glu	Glu	Pro	Pro	Glu	Glu	Pro
	-4	35		•			40	•				45			
Glu	Gln	Cys	Pro	Val	Ile	Asp	Ser	Gln	Ala	Pro	Ala	Gly	Ser	Leu	Asp
	50					55					60				
Leu	Val	Pro	Gly	Gly	Leu	Thr	Leu	Glu	Glu		Ser	Leu	Glu	Gln	
65					70					75					80
				_	_			_							.
Gln	Ser	Met	Val	Val	Gly	Glu	Val	Leu		Asp	He	GIU	Thr		Cys
				85	•				90					95	
T	T 011	T 011	A.c.n	Ile	mb ×-	λla) co	Dro	Mot	λen	Trn	Ser	Pro	Ser	Asn
гуs	rea	Leu	100	116	1111	AIA	тэр	105	rie C	тэр	TLP	JCI	110	001	
			100					103					110		
Va 1	Gln	T.VS	Tro	Leu	Leu	Tro	Thr	Glu	His	Gln	Tvr	Ara	Leu	Pro	Pro
•	01	115			200		120				-1-	125			
Met	Glv	Lvs	Ala	Phe	Gln	Glu	Leu	Ala	Gly	Lys	Glu	Leu	Cys	Ala	Met
	130					135			•	•	140		-		
Ser	Glu	Glu	Gln	Phe	Arg	Gln	Arg	Ser	Pro	Leu	Gly	Gly	Asp	Val	Leu
145					150		_			155					160
His	Ala	His	Leu	Asp	Ile	Trp	Lys	Ser	Ala	Ala	Trp	Met	Lys	Glu	Arg
				165					170					175	

Ala Met Asn Tyr Asp Lys Leu Ser Arg Ser Ile Arg Gln Tyr Tyr Lys 260 265 270

Lys Gly Ile Ile Arg Lys Pro Asp Ile Xaa Gln Arg Leu Val Tyr Gln 275 280 285

Phe Val His Pro Ile 290

<210> 634

<211> 227

<212> PRT

<213> Homo sapiens

<400> 634

Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Ala
1 5 10 15

Glu Glu Glu Glu Pro Gln Gln Arg Gly Gln Gly Glu Lys Ser Ala 35 40 45

Thr Pro Ser Arg Lys Ile Leu Asp Pro Asn Thr Gly Glu Pro Ala Pro 50 55 60

Val Leu Ser Ser Pro Pro Pro Ala Asp Val Ser Thr Phe Leu Ala Phe 65 70 75 80

Pro Ser Pro Glu Lys Leu Leu Arg Leu Gly Pro Lys Ser Ser Val Leu 85 90 95

Ile Ala Gln Gln Thr Asp Thr Ser Asp Pro Glu Lys Val Val Ser Ala

593

100 105 110 Phe Leu Lys Val Ser Ser Val Phe Lys Asp Glu Ala Thr Val Arg Met 120 Ala Val Gln Asp Ala Val Asp Ala Leu Met Gln Lys Ala Phe Asn Ser 135 130 Ser Ser Phe Asn Ser Asn Thr Phe Leu Thr Arg Leu Leu Val His Met Gly Leu Leu Lys Ser Glu Asp Lys Val Lys Ala Ile Ala Asn Leu Tyr Gly Pro Leu Met Ala Leu Asn His Met Val Gln Gln Asp Tyr Phe Pro 180 185 Lys Ala Leu Ala Pro Leu Leu Leu Ala Phe Val Thr Lys Pro Asn Ser 200 Ala Leu Glu Ser Cys Ser Phe Ala Arg His Ser Leu Leu Gln Thr Leu 215 Tyr Lys Val 225 <210> 635 <211> 126 <212> PRT <213> Homo sapiens <400> 635 Thr Ser Gly Cys Ile Ser Asn Gly Lys Met Ser Ser Asn Val Pro Ala Asp Met Ile Asn Leu Arg Leu Ile Leu Val Ser Gly Lys Thr Lys Glu 20 25 Phe Leu Phe Ser Pro Asn Asp Ser Ala Ser Asp Ile Ala Lys His Val 40 Tyr Asp Asn Trp Pro Met Asp Trp Glu Glu Glu Gln Val Ser Ser Pro Asn Ile Leu Arg Leu Ile Tyr Gln Gly Arg Phe Leu His Gly Asn Val 65 Thr Leu Gly Ala Leu Lys Leu Pro Phe Gly Lys Thr Thr Val Met His

90

Leu Val Ala Arg Glu Thr Leu Pro Glu Pro Asn Ser Gln Gly Gln Arg
100 105 110

Asn Arg Glu Lys Thr Gly Glu Ser Asn Cys Cys Val Ile Leu 115 · 120 125

<210> 636

<211> 195

<212> PRT

<213> Homo sapiens

<220>

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<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 636

Val Ser Gly Phe Ala Gly Pro Ala Ser Leu Ile Ser Met Lys Leu Leu 1 10 15

Ser Leu Val Ala Val Val Gly Cys Leu Leu Val Pro Pro Ala Glu Ala 20 25 30

Asn Lys Ser Ser Glu Asp Ile Arg Cys Lys Cys Ile Cys Pro Pro Tyr 35 40 45

Arg Asn Ile Ser Gly His Ile Tyr Asn Gln Asn Val Ser Gln Lys Asp 50 60

Cys Asn Cys Leu His Val Val Glu Pro Met Pro Val Pro Gly His Asp 65 70 75 80

Val Glu Ala Tyr Cys Leu Leu Cys Glu Cys Arg Tyr Glu Glu Arg Xaa 85 90 95

Thr Thr Thr Ile Lys Val Ile Ile Val Ile Tyr Leu Ser Val Val Gly
100 105 110

Ala Leu Leu Tyr Met Ala Phe Leu Met Leu Val Asp Pro Leu Ile 115 120 125

Arg Lys Pro Asp Ala Tyr Thr Glu Gln Leu His Asn Glu Glu Glu Asn 130 135 140

Glu Asp Ala Arg Ser Met Ala Ala Ala Ala Ala Ser Leu Gly Gly Pro 145 150 155 160

Arg Ala Asn Thr Val Leu Glu Arg Val Glu Gly Ala Gln Gln Arg Trp

595

165 170 175 Lys Leu Gln Val Gln Glu Gln Arg Lys Thr Val Phe Asp Arg His Lys 185 Met Leu Ser 195 <210> 637 <211> 159 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (92) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (138) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (151) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (156) <223> Xaa equals any of the naturally occurring L-amino acids <400> 637 Arg Pro Thr Arg Pro Gly Asn Ser Arg Arg Arg Gly Arg Arg Gly Cys 5 10 Trp Arg Leu Leu Gly Phe Gly Ala Ala Ile Met Pro Gly Ile Val 30 20 25 Glu Leu Pro Thr Leu Glu Asp Leu Lys Val Gln Glu Val Lys Val Ser 40

Ser Ser Val Leu Lys Ala Ala Ala His His Tyr Gly Val Gln Cys Asp

596

50 55 60

Lys Pro Asn Lys Glu Phe Met Leu Cys Arg Trp Glu Glu Lys Asp Pro 65 70 75 80

Arg Arg Cys Leu Glu Glu Gly Lys Leu Val Asn Xaa Cys Ala Leu Asp 85 90 95

Phe Phe Arg Gln Ile Lys Leu Ser Leu Cys Arg Ala Phe Tyr Arg Leu 100 105 110

Leu Asp Xaa His Arg Leu Leu Arg Pro Ala Val Phe Ser Ser Leu Pro 115 120 125

Gln Thr Ala Gly Gln Phe Asp Asp Val Xaa Gly Ala Thr Gly Met Val 130 135 140

Arg Leu Asn Trp Gly Lys Xaa Ser Ser His Gln Xaa Glu Asn Ser 145 150 155

<210> 638

<211> 20

<212> PRT

<213> Homo sapiens

<400> 638

Phe Ser Arg Asp Lys Val Ser Pro Cys Trp Pro Gly Trp Ser Arg Thr 1 5 10 15

Pro Gly Leu Arg

20

<210> 639

<211> 408

<212> PRT

<213> Homo sapiens

<400> 639

Thr Trp Gly Gln Thr Pro Cys Ser Pro Gly His Gly Gln Arg Pro Ser

1 5 10 15

Ser Thr Cys Leu Thr Val Gly Pro Gly Gly Pro Ser Leu Gly Arg
20 25 30

Pro Cys Pro Gln Leu Leu Gln Phe Gly Val Leu Phe Cys Thr Ile 35 40

•	Leu	Leu 50	Leu	Leu	Trp	Val	Ser 55	Val	Phe	Leu	Tyr	Gly 60	Ser	Phe	Tyr	Tyr
	Ser 65	Tyr	Met	Pro	Thr	Val 70	Ser	His	Leu	Ser	Pro 75	Val	His	Phe	Tyr	Tyr 80
	Arg	Thr	Asp	Cys	Asp 85	Ser	Ser	Thr	Thr	Ser 90	Leu	Cys	Ser	Phe	Pro 95	Val
	Ala	Asn	Val	Ser 100	Leu	Thr	Lys	Gly	Gly 105	Arg	Asp	Arg	Val	Leu 110	Met	Tyr
	Gly	Gln	Pro 115	Tyr	Arg	Val	Thr	Leu 120	Glu	Leu	Glu	Leu	Pro 125	Glu	Ser	Pro
	Val	Asn 130	Gln	Asp	Leu	Gly	Met 135	Phe	Leu	Val	Thr	Ile 140	Ser	Cys	Tyr	Thr
	Arg 145	Gly	Gly	Arg	Ile	Ile 150	Ser	Thr	Ser	Ser	Arg 155	Ser	Val	Met	Leu	His 160
	Tyr	Arg	Ser	Asp	Leu 165	Leu	Gln	Met	Leu	Asp 170	Thr	Leu	Val	Phe	ser 175	Ser
	Leu	Leu	Leu	Phe 180	Gly	Phe	Ala	Glu	Gln 185	Lys	Gln	Leu	Leu	Glu 190	Val	Glu
	Leu	Tyr	Ala 195	Asp	туr	Arg	Glu	Asn 200	Ser	Tyr	Val	Pro	Thr 205	Thr	Gly	Ala
	Ile	11e 210	Glu	Ile	His	Ser	Lys 215	Arg	Ile	Gln	Leu	Туг 220	Gly	Ala	Tyr	Leu
	Arg 225	Ile	His	Ala	His	Phe 230	Thr	Gly	Leu	Arg	Tyr 235	Leu	Leu	Tyr	Asn	Phe 240
	Pro	Met	Thr	Cys	Ala 245	Phe	Ile	Gly	Val	Ala 250	Ser	Asn	Phe	Thr	Phe 255	Leu
	Ser	Val	Ile	Val 260	Leu	Phe	Ser	Tyr	Met 265	Gln	Trp	Val	Trp	Gly 270	Gly	Ile
	Trp	Pro	Arg 275	His	Arg	Phe	Ser	Leu 280	Gln	Val	Asn	Ile	Arg 285	Lys	Arg	Asp
	Asn	Ser 290	Arg	Lys	Glu	Val	Gln 295	Arg	Arg	Ile	Ser	Ala 300	His	Gln	Pro	Gly
	Pro 305	Glu	Gly	Gln	Glu	Glu 310	Ser	Thr	Pro	Gln	Ser 315	Asp	Val	Thr	Glu	Asp 320

598

Gly Glu Ser Pro Glu Asp Pro Ser Gly Thr Glu Gly Gln Leu Ser Glu 325 Glu Glu Lys Pro Asp Gln Gln Pro Leu Ser Gly Glu Glu Glu Leu Glu 345 340 Pro Glu Ala Ser Asp Gly Ser Gly Ser Trp Glu Asp Ala Ala Leu Leu 360 Thr Glu Ala Asn Leu Pro Ala Pro Ala Pro Ala Ser Ala Ser Ala Pro 375 Val Leu Glu Thr Leu Gly Ser Ser Glu Pro Ala Gly Gly Ala Leu Arg 390 385 395 Gln Arg Pro Thr Cys Ser Ser Ser 405 <210> 640 <211> 288 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (268) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (271) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (273) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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<22	2> (274)													
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<22	1> S	ITE													
<22	2> (276)													
	3> X		qual	s any	y of	the	nati	ıral	ly o	ccur	ring	L-ar	nino	acio	is
<22	0>														
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<22	2> (286)													
<22	3> X	aa e	qual	s any	y of	the	nati	ıral	ly o	ccur	ring	L-ar	nino	acio	ls
<40	0> 6	40													
Phe 1	Ser	Ser	Ser	Ala 5	Cys	Pro	Ser	Val	Xaa 10	Ser	Leu	Phe	Val	Xaa 15	Let
Gly	Lys	Asn	Pro	His	Asp	Ala	Gln	Gly	His	Pro	Arg	Ala	Ser	Glu	Asp
			20					25					30		
Gln	Pro	Ser 35	Ser	Gly	Lys	Pro	Val 40	Thr	Ser	Tyr	Pro	Gly 45	Glu	Cys	Gly
Phe	Val 50	Phe	Thr	Lys	Glu	Ala 55	Ser	Leu	Glu	Ile	Arg 60	Asp	Met	Leu	Let
Ala	Asn	Lys	Val	Pro	Ala	Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys
65					70					75					80
Glu	Val	Thr	Val	Pro 85	Ala	Gln	Asn	Thr	Gly 90	Leu	Gly	Pro	Glu	Lys 95	Thi
Ser	Phe	Phe	Gln 100	Ala	Leu	Gly	Ile	Thr 105	Thr	Lys	Ile	Ser	Arg 110	Gly	Thi
Ile	Glu	Ile 115	Leu	Ser	Asp	Val	Gln 120	Leu	Ile	Lys	Thr	Gly 125	Asp	Lys	Va]
Gly	Ala 130	Ser	Glu	Ala	Thr	Leu 135	Leu	Asn	Met	Leu	Asn 140	Ile	Ser	Pro	Phe
Ser	Phe	Gly	Leu	Ile	Ile	Gln	Gln	Val	Phe	Asp	Asn	Gly	Ser	Ile	Тут
145		-			150					155		-			160
Asn	Pro	Glu	Val		Asp	Ile	Thr	Glu		Thr	Leu	His	Ser	_	Phe
				165					170					175	
Leu	Glu	Gly	Val 180	Arg	Asn	Val	Ala	Ser 185	Val	Cys	Leu	Gln	Ile 190	Gly	Туг
			100					103					- 70		

Pro Thr Val Ala Ser Val Pro His Ser Ile Ile Asn Gly Tyr Lys Arg

Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu 210 215 220

Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val Ala Ala Ala 225 230 235 240

Pro Val Ala Ala Ala Thr Thr Ala Ala Pro Ala Ala Ala Ala Ala Pro 245 250 255

Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Xaa Asp Glu Xaa Ile 260 265 270

Xaa Xaa Ser Xaa Ile Ser Lys Ser Asn Asn Ser Ser Gln Xaa Ile Val 275 280 285

<210> 641

<211> 444

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 641

Asn Glu Gln Asp Asn Cys Val Leu Ile His Asp Val Asp Gln Arg Asn 1 5 10 15

Ser Asp Lys Asp Ile Phe Gly Asp Ala Cys Asp Asn Cys Leu Ser Val 20 25 30

Leu Xaa Asn Asp Gln Lys Asp Thr Asp Gly Asp Gly Asp Gly Asp Ala
35 40 45

Cys Asp Asp Met Asp Gly Asp Gly Ile Lys Asn Ile Leu Asp Asn 50 60

Cys Pro Lys Phe Pro Asn Arg Asp Gln Arg Asp Lys Asp Gly Asp Gly 65 70 75 80

Val Gly Asp Ala Cys Asp Ser Cys Pro Asp Val Ser Asn Pro Asn Gln 85 90 95

Ser	Asp	Val	Asp 100	Asn	Asp	Leu	Val	Gly 105	Asp	Ser	Cys	Asp	110	Asn	GIn
Asp	Ser	Asp 115	Gly	Asp	Gly	His	Gln 120	Asp	Ser	Thr	Asp	Asn 125	Cys	Pro	Thr
Val	11e 130	Asn	Ser	Ala	Gln	Leu 135	Asp	Thr	Asp	Lys	Asp 140	Gly	Ile	Gly	Asp
Glu 145	Cys	Asp	Asp	Asp	Asp 150	Asp	Asn	Asp	Gly	Ile 155	Pro	Asp	Leu	Val	Pro 160
Pro	Gly	Pro	Asp	Asn 165	Cys	Arg	Leu	Val	Pro 170	Asn	Pro	Ala	Gln	Glu 175	Asp
Ser	Asn	Ser	Asp 180	Gly	Val	Gly	Asp	Ile 185	Cys	Glu	Ser	Asp	Phe 190	Asp	Gln
_		195		-			200		_			205		Glu	
	210					215					220			Pro	
225	_				230			-		235				Gly	240
				245				_	250	0				Gly 255	
			260			_		265	_				270	Asn	
		275					280					285		Asp	
	290		_			295	_	_			300			Tyr	
305					310					315				Leu	320
				325					330					335	
			340					345		-			350	Lys	
Ser	Arg	Asn 355	Val	Gly	Trp	Lys	Asp 360	Lys	Val	Ser	Tyr	Arg 365	Trp	Phe	Leu

602

Gln His Arg Pro Gln Val Gly Tyr Ile Arg Val Arg Phe Tyr Glu Gly

370 375 Ser Glu Leu Val Ala Asp Ser Gly Val Thr Ile Asp Thr Thr Met Arg 390 395 Gly Gly Arg Leu Gly Val Phe Cys Phe Ser Gln Glu Asn Ile Ile Trp 410 Ser Asn Leu Lys Tyr Arg Cys Asn Asp Thr Ile Pro Glu Asp Phe Gln 425 Glu Phe Gln Thr Gln Asn Phe Asp Arg Phe Asp Asn 440 <210> 642 <211> 326 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (296) <223> Xaa equals any of the naturally occurring L-amino acids Ser Ala Arg Ala Ser Asp Leu Gly Ala Pro Arg Thr Trp Thr Gly Ala Ala Ala Gly Pro Arg Thr Pro Ser Ala His Ile Pro Val Pro Ala Gln 25 Arg Ala Thr Pro Gly Lys Ala Arg Leu Asp Glu Val Met Ala Ala Ala 40 Ala Xaa Thr Ser Leu Ser Thr Ser Pro Leu Leu Gly Ala Pro Val Ala Ala Phe Ser Pro Glu Pro Gly Leu Glu Pro Trp Lys Glu Ala Leu Val Arg Pro Pro Gly Ser Tyr Ser Ser Ser Ser Asn Ser Gly Asp Trp

90

Gly	Trp	Asp	Leu 100	Ala	Ser	Asp	Gln	Ser 105	Ser	Pro	Ser	Thr	Pro 110	Ser	Pro
Pro	Leu	Pro 115	Pro	Glu	Ala	Ala	His 120	Phe	Leu	Phe	Gly	Glu 125	Pro	Thr	Leu
Arg	Lys 130	Arg	Lys	Ser	Pro	Ala 135	Gln	Val	Met	Phe	Gln 140	Cys	Leu	Trp	Lys
Ser 145	Cys	Gly	Lys	Val	Leu 150	Ser	Thr	Ala	Ser	Ala 155	Met	Gln	Arg	His	11e
Arg	Leu	Val	His	Leu 165	Gly	Arg	Gln	Ala	Glu 170	Pro	Asp	Gln	Ser	Asp 175	Gly
Glu	Glu	Asp	Phe 180	туг	Tyr	Thr	Glu	Leu 185	Asp	Val	Gly	Val	Asp 190	Thr	Leu
Thr	Asp	Gly 195	Leu	Ser	Ser	Leu	Thr 200	Pro	Val	Ser	Pro	Thr 205	Ala	Ser	Met
Pro	Pro 210	Ala	Phe	Pro	Arg	Leu 215	Glu	Leu	Pro	Glu	Leu 220	Leu	Glu	Pro	Pro
Ala 225	Leu	Pro	Ser	Pro	Leu 230	Arg	Pro	Pro	Ala	Pro 235	Pro	Leu	Pro	Pro	Pro 240
Pro	Val	Leu	Ser	Thr 245	Val	Ala	Asn	Pro	Gln 250	Ser	Cys	His	Ser	Asp 255	Arg
Val	Tyr	Gln	Gly 260	Cys	Leu	Thr	Pro	Ala 265	Arg	Leu	Glu	Pro	Gln 270	Pro	Thr
Glu	Val	Gly 275	Ala	Cys	Pro	Pro	Ala 280	Leu	Ser	Ser	Arg	11e 285	Gly	Val	Thi
Leu	Arg 290	Lys	Pro	Arg	Gly	Asp 295	Xaa	Lys	Lys	Cys	Arg 300	Lys	Val	туг	Gly
Met 305	Glu	Arg	Arg	Asp	Leu 310	Trp	Cys	Thr	Ala	Cys 315	Arg	Trp	Lys	Lys	Ala 320
Cys	Gln	Arg	Phe	Leu	Asp										

<210> 643 <211> 129 325

<212> PRT

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<213> Homo sapiens
<220>
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<400> 643
Asp Val Arg Leu Ser Gly Arg Asn Xaa Xaa Val Asp Val Xaa Asp His
                  5
                                     10
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605

Gln Xaa Xaa Leu Leu Glu Gln Xaa Asp Leu Leu Ala Gly Leu Ile Ser Asn Ser Ser Asp Ala Xaa Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp 40 Pro Ser Lys Leu Asp Ser Gly Lys Glu Leu His Ile Asn Leu Ile Pro Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Gly Tyr Arg Asp Arg Met Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Xaa Ser Gly 85 90 Thr Lys Ala Phe Met Glu Xaa Leu Gln Ala Gly Ala Asp Ile Ser Met 105 Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Arg Arg <210> 644 <211> 156 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <400> 644 Ser Thr His Ala Ser Ala Ser Arg Arg Leu Leu Xaa Asp Val Cys Gln

606

Ile Cys Gly Leu Val Gly Phe Cys Asp Gln Val Lys Glu Met Pro Met 85 90 95

Gln Thr Leu Ile Pro Ala Lys Ala Val Ser Glu Asn Val Ile Pro Ala 100 105 110

Leu Glu Leu Val Glu Pro Ile Lys Lys Asp Thr Val Gln Ala Lys Thr 115 120 125

Ser Val Ser Cys Gly Asp Met Arg Val Thr Trp Leu Lys Glu Val Ala 130 135 140

Lys Leu His Trp Thr Thr Thr Gly Leu Arg Lys Lys 145 150 155

<210> 645

<211> 115

<212> PRT

<213> Homo sapiens

<400> 645

Ala Asp Pro Gly Val Gly Ala Val Pro Gly Leu Ala Ala Asp Leu Ala 1 5 10 15

Thr Ala Ala Arg Ser Leu Gly Pro Ala Leu Val Leu Asp Leu Gly Arg 20 25 30

Pro Pro Ser Pro Asp Pro His Glu Gly Pro Ser Pro Ser Pro Arg Arg
35 40 45

Ser Pro Asp Leu Val Arg Gly Pro Gly Pro Gly Leu Gly Pro Gly Val
50 55 60

Leu Pro Gln Cys Pro Arg Gly Asn Pro Asn Pro Gly Arg Asp Arg Arg 65 70 .75 80

Val Pro Pro Ser Leu Leu Lys Arg Lys Glu Arg Cys Pro Leu Lys Lys 85 90 95

Met Val Met Ser Gly Asn Pro Arg His Ile Thr Leu Ile His Lys Trp 100 105 110

Asp Leu Gly

607

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<211> 153
<212> PRT
<213> Homo sapiens
<220>
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<222> (127)
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Tyr Met Pro Asn Gly Ser Leu Asn Glu Leu Leu His Arg Lys Thr Glu
                                    10
Tyr Pro Asp Val Ala Trp Pro Leu Arg Phe Arg Ile Leu His Glu Ile
                               25
Ala Leu Gly Val Asn Tyr Leu His Asn Met Thr Pro Pro Leu Leu His
                            40
His Asp Leu Lys Thr Gln Asn Ile Leu Leu Asp Asn Glu Phe His Val
Lys Ile Ala Asp Phe Gly Leu Ser Lys Trp Arg Met Met Ser Leu Ser
                                        75
65
                     70
Gln Ser Arg Ser Ser Lys Ser Ala Pro Glu Gly Gly Thr Ile Ile Tyr
                 85
Met Pro Pro Glu Asn Tyr Glu Pro Gly Gln Lys Ser Arg Ala Ser Ile
                               105
Lys His Asp Ile Tyr Ser Tyr Ala Val Ile Thr Trp Glu Val Xaa Ser
       115
Arg Lys Gln Pro Phe Glu Asp Val Thr Asn Pro Leu Gln Ile Met Tyr
Ser Val Ser Gln Gly His Trp Thr Gly
                   150
<210> 647
<211> 220
<212> PRT
<213> Homo sapiens
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Ala Ser Glu Gln Gly Ala Val Gly Gln Gly Leu Ala Gly Val Pro

10

5

<400> 647

608

Thr Leu Thr Ser Leu Pro Ser Ser Cys Pro Glu Pro Arg Pro Ser Met 20 25 30

Asp Ala Val Asp Ala Thr Met Glu Lys Leu Arg Ala Gln Cys Leu Ser 35 40 45

Arg Gly Ala Ser Gly Ile Gln Gly Leu Ala Arg Phe Phe Arg Gln Leu 50 55 60

Asp Arg Asp Gly Ser Arg Ser Leu Asp Ala Asp Glu Phe Arg Gln Gly 65 70 75 80

Leu Ala Lys Leu Gly Leu Val Leu Asp Gln Ala Glu Ala Glu Gly Val
85 90 95

Cys Arg Lys Trp Asp Arg Asn Gly Ser Gly Thr Leu Asp Leu Glu Glu 100 105 110

Phe Leu Arg Ala Leu Arg Pro Pro Met Ser Gln Ala Arg Glu Ala Val 115 120 125

Ile Ala Ala Ala Phe Ala Lys Leu Asp Arg Ser Gly Asp Gly Val Val 130 135 140

Thr Val Asp Asp Leu Arg Gly Val Tyr Ser Gly Arg Ala His Pro Lys 145 150 155 160

Val Arg Ser Gly Glu Trp Thr Glu Asp Glu Val Leu Arg Arg Phe Leu 165 170 175

Asp Asn Phe Asp Ser Ser Glu Lys Asp Gly Gln Val Thr Leu Ala Glu 180 185 190

Phe Gln Asp Tyr Tyr Ser Gly Val Ser Ala Ser Met Asn Thr Asp Glu 195 200 205

Glu Phe Val Ala Met Met Thr Ser Ala Trp Gln Leu 210 215 220

<210> 648

<211> 118

<212> PRT

<213> Homo sapiens

<400> 648

Asp Asn Arg Thr Leu Thr Lys Gly Pro Asp Thr Val Gly Thr Met Gly 1 5 10 15

Gln Cys Arg Ser Ala Asn Ala Glu Asp Ala Gln Glu Phe Ser Asp Val

609

30 20 25 Glu Arg Ala Ile Glu Thr Leu Ile Lys Asn Phe His Gln Tyr Ser Val 40 Glu Gly Gly Lys Glu Thr Leu Thr Pro Ser Glu Leu Arg Asp Leu Val 55 Thr Gln Gln Leu Pro His Leu Met Pro Ser Asn Cys Gly Leu Glu Glu Lys Ile Ala Asn Leu Gly Ser Cys Asn Asp Ser Lys Leu Glu Phe Arg Ser Phe Trp Glu Leu Ile Gly Glu Ala Ala Lys Ser Val Lys Leu Glu 100 105 Arg Pro Val Arg Gly His 115 <210> 649 <211> 309 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (77) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (160) <223> Xaa equals any of the naturally occurring L-amino acids <400> 649 Asp His His Gln Gly Ala Glu Ser Val Pro Gly Ile Gly Val Ser Pro 5 Thr Ser Ser Ser Cys Pro Pro Thr Ser Cys Thr Gln Pro Val Thr Thr Trp Ser Pro Gly Leu Arg Val Glu Ser Leu Asp Gly Ala Lys Thr Gly Lys Gly Ala Leu Thr Gly Ala Pro Gly Ser Phe Gly Ser Ser Glu 50 55

Phe Leu Thr Gly Leu Arg Asn Thr Ser Glu Ala Arg Xaa Thr Arg Gly

65					70					75					80
Pro	Ile	Met	Gln	Glu 85	Pro	Arg	Arg	Val	Thr 90	Pro	Cys	Leu	Gly	Lys 95	Arg
Gly	Val	Lys	Thr 100	Pro	Gln	Leu	Gln	Pro 105	Gly	Ser	Ala	Phe	Leu 110	Pro	Arg
Val	Arg	Arg 115	Gln	Ser	Phe	Pro	Ala 120	Arg	Ser	Asp	Ser	Туг 125	Thr	Thr	Val
Arg	Asp 130	Phe	Leu	Ala	Val	Pro 135	Arg	Thr	Ile	Ser	Ser 140	Ala	Ser	Ala	Thr
Leu 145	Ile	Met	Ala	Val	Ala 150	Val	Ser	His	Phe	Arg 155	Pro	Gly	Pro	Glu	Xaa 160
Trp	Asp	Thr	Ala	Ser 165	Met	Ala	Ala	Ser	Lys 170	Val	Lys	Gln	Asp	Met 175	Pro
Pro	Pro	Gly	Gly 180	Tyr	Gly	Pro	Ile	Asp 185	Tyr	Lys	Arg	Asn	Leu 190	Pro	Arg
Arg	Gly	Leu 195	Ser	Gly	Tyr	Ser	Met 200	Leu	Ala	Ile	Gly	Ile 205	Gly	Thr	Leu
Ile	Туг 210	Gly	His	Trp	Ser	11e 215	Met	Lys	Trp	Asn	Arg 220	Glu	Arg	Arg	Arg
Leu 225	Gln	Ile	Glu	Asp	Phe 230	Glu	Ala	Arg	Ile	Ala 235	Leu	Leu	Pro	Leu	Leu 240
Gln	Ala	Glu	Thr	Asp 245	Arg	Arg	Thr	Leu	Gln 250	Met	Leu	Arg	Glu	Asn 255	Leu
Glu	Glu	Glu	Ala 260	Ile	Ile	Met	Lys	Asp 265	Val	Pro	Asp	Trp	Lys 270	Val	Gly
Glu	Ser	Val 275	Phe	His	Thr	Thr	Arg 280	Trp	Val	Pro	Pro	Leu 285	Ile	Gly	Glu
Leu	Туг 290	Gly	Leu	Arg	Thr	Thr 295	Glu	Glu	Ala	Leu	His 300	Ala	Ser	His	Gly
Phe 305	Met	Trp	Tyr	Thr											

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Ala	Gly	Trp	Leu 20	Gln	His	Asp	Туг	Gly 25	His	Leu	Ser	Val	Tyr 30	Arg	Lys
Pro	Lys	Trp 35	Asn	His	Leu	Val	His 40	Lys	Phe	Val	Ile	Gly 45	His	Leu	Lys
Gly	Ala 50	Ser	Ala	Asn	Trp	Trp 55	Asn	His	Arg	His	Phe 60	Gln	His	His	Ala
Lys 65	Pro	Asn	Ile	Phe	His 70	Lys	Asp	Pro	Asp	Val 75	Asn	Met	Leu	His	Val 80
Phe	Val	Leu	Gly	Glu 85	Trp	Gln	Pro	Ile	Glu 90	туг	Gly	Lys	Lys	Lys 95	Leu
Lys	Tyr	Leu	Pro 100	Tyr	Asn	His	Gln	His 105	Glu	Tyr	Phe	Phe	Leu 110	Ile	Gly
Pro	Pro	Leu 115	Leu	Ile	Pro	Met	Tyr 120	Phe	Gln	Tyr	Gln	Ile 125	Ile	Met	Thr
Met	Ile 130	Val	His	Lys	Asn	Trp 135	Val	Asp	Leu	Ala	Trp 140	Ala	Val	Ser	Tyr
Туг 145	Ile	Arg	Phe	Phe	Ile 150	Thr	Tyr	Ile	Pro	Phe 155	туг	Gly	Ile	Leu	Gly 160
Ala	Leu	Leu	Phe	Leu 165	Asn	Phe	Ile	Arg	Phe 170	Leu	Glu	Ser	His	Trp 175	Phe
Val	Trp	Val	Thr 180	Gln	Met	Asn	His	Ile 185	Val	Met	Glu	Ile	Asp 190	Gln	Glu
Ala	Tyr	Arg 195	Asp	Trp	Phe	Ser	Ser 200	Gln	Leu	Thr	Ala	Thr 205	Cys	Asn	Val
Glu	Gln 210	Ser	Phe	Phe	Asn	Asp 215	Trp	Phe	Ser	Gly	His 220	Leu	Asn	Phe	Gln
Ile 225	Glu	His	His	Leu	Phe 230	Pro	Thr	Met	Pro	Arg 235	His	Asn	Leu	His	Lys 240
Ile	Ala	Pro	Leu	Val 245	-	Ser	Leu	_	Ala 250	-	His	Gly	Ile	Glu 255	Tyr

612

Gln Glu Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu 260 265 270

Lys Lys Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys 275 280 285

<210> 651

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<213> Homo sapiens

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Ile Ser Leu Leu Arg Ala Glu Leu Arg Leu Tyr Thr Asp Pro His Lys
20 25 30

Tyr His Xaa Phe Cys Leu Arg Lys Asp Lys Ala His Val Cys Phe Cys 35 40 45

Phe Arg Phe Leu Phe Ser Phe Phe Xaa Glu Ala Leu Trp Arg Ser Met 50 55 60

Phe Leu Leu Ser Phe Leu Xaa Lys Pro Ser Phe Trp Ala Thr Gly Leu 65 70 75 80

Ile Leu Ser Thr Ser Ser Phe Pro Pro Phe Ser Ile Val Ser Leu Pro

613

85 90 95

Pro Ser His Pro Thr Arg Ala Pro Leu Xaa Leu Ser Phe Pro Ser Ser 100 105 110

Pro Ala Val Ser Phe Leu Arg Ser Gly Thr Lys Leu Ile Phe Arg Arg 115 120 125

Arg Pro Arg Gln Lys Glu Ala Gly Leu Ser Gln Ser His Asp Asp Leu 130 135 140

Ser Asn Ala Thr Ala Thr Pro Ser Val Arg Lys Lys Ala Gly Ser Phe 145 150 155 160

Ser Arg Arg Leu Ile Lys Arg Phe Ser Phe Lys Ser Lys Pro Lys Ala 165 170 175

Asn Gly Asn Pro Ser Pro Gln Leu 180

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<213> Homo sapiens

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Arg Asn Leu Asn Pro His Ser Thr Met Asp Ser Ile Leu Gly Ala Leu 20 25 30

Ala Pro Tyr Ala Val Leu Ser Ser Ser Asn Val Arg Val Ile Lys Asp 35 40 45

Lys Gln Thr Gln Leu Asn Arg Gly Phe Ala Phe Ile Gln Leu Ser Thr 50 55 60

Ile Glu Ala Ala Gln Leu Leu Gln Ile Leu Gln Ala Leu His Pro Pro 65 70 75 80

Leu Thr Ile Asp Gly Lys Thr Ile Asn Val Glu Phe Ala Lys Gly Ser 85 90 95

Lys	Arg	Asp	Met 100	Ala	Ser	Asn	Glu	Gly 105	Ser	Arg	Ile	Ser	Ala 110	Ala	Ser
Val	·Ala	Ser 115	Thr	Ala	Ile	Ala	Ala 120	Ala	Gln	Trp	Ala	Ile 125	Ser	Gln	Ala
Ser	Gln 130	Gly	Gly	Glu	Gly	Thr 135	Trp	Ala	Thr	Ser	Glu 140	Glu	Pro	Pro	Val
Asp 145	Tyr	Ser	Tyr	Tyr	Gln 150	Gln	Asp	Glu	Gly	Tyr 155	Gly	Asn	Ser	Gln	Gly 160
Thr	Glu	Ser	Ser	Leu 165	туг	Ala	His	Gly	Туг 170	Leu	Lys	Gly	Thr	Lys 175	Gly
Pro	Gly	Ile	Thr 180	Gly	Thr	Lys	Gly	Asp 185	Pro	Thr	Gly	Ala	Gly 190	Pro	Glu
Ala	Ser	Leu 195	Glu	Pro	Gly	Ala	Asp 200	Ser	Val	Ser	Met	Gln 205	Ala	Phe	Ser
Arg	Ala 210	Gln	Pro	Gly	Ala	Ala 215	Pro	Gly	Ile	Tyr	Gln 220	Gln	Ser	Ala	Glu
Ala 225	Ser	Ser	Ser	Gln	Gly 230	Thr	Ala	Ala	Asn	Ser 235	Gln	Ser	Tyr	Thr	11e 240
Met	Ser	Pro	Ala	Val 245	Leu	Lys	Ser	Glu	Leu 250	Gln	Ser	Pro	Thr	His 255	Pro
Ser	Ser	Ala	Leu 260	Pro	Pro	Ala	Thr	Ser 265	Pro	Thr	Ala	Gln	Glu 270	Ser	Tyr
Ser	Gln	туr 275	Pro	Val	Pro	Asp	Val 280	Ser	Thr	Tyr	Gln	Туг 285	Asp	Glu	Thr
Ser	Gly 290	Tyr	Tyr	Tyr	Asp	Pro 295	Gln	Thr	Gly	Leu	Tyr 300	Tyr	Asp	Pro	Asn
Ser 305	Gln	Tyr	Tyr	Tyr	Asn 310	Ala	Gln	Ser	Gln	Gln 315	Tyr	Leu	Tyr	Trp	Asp 320
Gly	Glu	Arg	Arg	Thr 325	Tyr	Val	Pro	Ala	Leu 330	Glu	Gln	Ser	Ala	Asp 335	Gly
His	Lys	Glu	Thr 340	Gly	Ala	Pro	Ser	Lys 345	Glu	Gly	Lys	Glu	Lys 350	Lys	Glu
Lys	His	Lys 355	Thr	Lys	Thr	Ala	Gln 360	Gln	Ile	Ala	Lys	Asp 365	Met	Glu	Arg

Trp	Ala 370	Arg	Ser	Leu	Asn	Lys 375	Gln	Lys	Glu	Asn	380	Lys	Asn	Ser	Phe
Gln 385	Pro	Ile	Ser	Ser	Leu 390	Arg	Asp	Asp	Glu	Arg 395	Arg	Glu	Ser	Ala	Thr 400
Ala	Asp	Ala	Gly	Tyr 405	Ala	Ile	Leu	Glu	Lys 410	Lys	Gly	Ala	Leu	Ala 415	Glu
Arg	Gln	His	Thr 420	Ser	Met	Asp	Leu	Pro 425	Lys	Leu	Ala	Ser	Asp 430	Asp	Arg
Pro	Ser	Pro 435	Pro	Arg	Xaa	Leu	Val 440	Ala	Ala	туг	Ser	Gly 445	Glu	Ser	Asp
Ser	Glu 450	Glu	Glu	Gln	Glu	Arg 455	Gly	Gly	Pro	Glu	Arg 460	Glu	Glu	Lys	Leu
Thr 465	Asp	Trp	Gln	Lys	Leu 470	Ala	Cys	Leu	Leu	Cys 475	Arg	Arg	Gln	Phe	Pro 480
Ser	Lys	Glu	Ala	Leu 485	Ile	Arg	His	Gln	Gln 490	Leu	Ser	Gly	Leu	His 495	Lys
			500					505			Ser		510		
Glu	Ala	Leu 515	Glu	Lys	Asn	Asp	Met 520	Glu	Gln	Met	Lys	Туг 525	Arg	Asp	Arg
Ala	Ala 530	Glu	Arg	Arg	Glu	Lys 535	Tyr	Gly	Ile	Pro	Glu 540	Pro	Pro	Glu	Pro
Lys 545	Arg	Arg	Lys	Tyr	Gly 550	Gly	Ile	Ser	Thr	Ala 555	Ser	Val	Asp	Phe	Glu 560
Gln	Pro	Thr	Arg	Asp 565	Gly	Leu	Gly	Ser	Asp 570	Asn	Ile	Gly	Ser	Arg 575	Met
Leu	Gln	Ala	Met 580	Gly	Trp	Lys	Glu	Gly 585	Ser	Gly	Leu	Gly	Arg 590	Lys	Lys
Sln	Gly	Ile 595	Val	Thr	Pro	Ile	Glu 600	Ala	Gln	Thr	Arg	Val 605	Arg	Gly	Ser
Sly	Leu 610	Gly	Ala	Arg	Gly	Ser 615	Ser	Tyr	Gly	Val	Thr 620	Ser	Thr	Glu	Ser
Tyr 525	Lys	Glu	Thr	Leu	His 630	Lys	Thr	Met	Val	Thr 635	Arg	Phe	Asn	Glu	Ala 640

Gln

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Leu	Leu	Tro	Leu	Val	Thr	Pro	Gly	Val	Pro	Ala	Phe	Ser	Gly	Trp	Gly
		•	20				-	25					30		
Ara	Ara	His	Ara	Gly	Arg	Thr	Glv	Arq	Arq	Ala	Met	Ala	Ser	Cys	Val
	9	35	5	1	,		40					45		•	•
ดาง	Ser	Ara	Thr	Leu	Ser	Lvs	Asp	Asp	Val	Asn	Tvr	Lvs	Met	His	Phe
,	50	5				55					60	•			
	50														
Ara	Met	Tle	Asn	Glu	Gln	Gln	Val	Glu	Asp	Ile	Thr	Ile	Asp	Phe	Phe
65					70					75			- 2		80
0,5															
Tur	Ara	Pro	His	Thr	Ile	Thr	Leu	Leu	Ser	Phe	Thr	Ile	Val	Ser	Leu
-1-	•••			85					90					95	
				05					, ,						
Wa+	ጥህም	Dho	Δla	Phe	Thr	Ara	Aso	Asn	Ser	Val	Pro	Glu	Asp	Asn	Ile
met	TÄT	rne	100	Fine	1111	ALG	nsp	105		• • • •	110	014	110		
			100					103							
m	N	C1	71 0	Leu	Co.	17 - 1	Tla	Dhe	Pho	Dho	Tan	Tla	Tla	Ser	Va l
пр	Arg		116	Leu	ser	val	120	FIIE	FIIC	File	Deu	125	116	Der	Val
		115					120					123			
	• • •	26	D-s-c		61	Desc	Dh.c	mb	N	Dec	ui c	Drc	77-	T our	Trr.
Leu		hue	PIO	Asn	GTÀ		rne	rnr	Arg	PIO		LLO.	WTG	ren	тър
	130					135					140				
_					•	0	*** 1	.	m	nh-	, T ===	Dh-	T	17. 1	nha
	Met	Val	Pne	Gly		ser	vaı	Leu	Tyr		ren	rue	neu	val	
145					150					155					160

Leu	Leu	Pne	Leu	165	Pne	GIU		vai	Lys 170	Ser	rea	met	Tyr	175	Leu
Asp	Pro	Asn	Leu 180	Arg	Tyr	Ala	Thr	Arg 185	Glu	Ala	Asp	Val	Met 190	Glu	Tyr
Ala	Val	Asn 195	Суѕ	His	Val	Ile	Thr 200	Trp	Glu	Arg	Ile	Ile 205	Ser	His	Phe
Asp	Ile 210	Phe	Ala	Phe	Gly	His 215	Phe	Trp	Gly	Trp	Ala 220	Met	Lys	Ala	Leu
225					230					235				Trp	240
				245					250					Glu 255	
			260					265					270	Gly	
		275					280					285		Thr	
	290				-	295					300	_		Ile	
305					310					315				Arg	320
	_			325					330					Leu 335	
			340					345					350	Lys	
		355					360					365		Ile	
	370					375					380			Ala	
385					390					395				Val	400
				405					410					Gly 415	
Asp	Leu	Phe	Ser 420	гуs	Thr	GIn	IIe	Leu 425	Tyr	val	val	ren	Trp 430	Leu	Leu

618

Cys Val Ala Phe Thr Thr Phe Leu Cys Leu Tyr Gly Met Ile Trp Tyr Ala Glu His Tyr Gly His Arg Glu Lys Thr Tyr Ser Glu Cys Glu Asp 450 Gly Thr Tyr Ser Pro Glu Ile Ser Trp His His Arg Lys Gly Thr Lys 470 475 Gly Ser Glu Asp Ser Pro Pro Lys His Ala Gly Asn Asn Glu Ser His 490 485 Ser Ser Arg Arg Asn Arg His Ser Lys Ser Lys Val Thr Asn Gly 505 500 Val Gly Lys Lys 515 <210> 654 <211> 663 <212> PRT <213> Homo sapiens <400> 654 Leu Glu Cys Arg Glu Ala His Ile Arg Asp Val Pro Val Val Arg Leu Pro Ala Asp Ser Pro Ile Pro Glu Arg Gly Asp Leu Ser Cys Arg Met 20 25 His Thr Cys Phe Asp Val Tyr Arg Cys Gly Phe Asn Pro Lys Asn Lys 40 Ile Lys Val Tyr Ile Tyr Ala Leu Lys Lys Tyr Val Asp Asp Phe Gly 55 50 Val Ser Val Ser Asn Thr Ile Ser Arg Glu Tyr Asn Glu Leu Leu Met Ala Ile Ser Asp Ser Asp Tyr Tyr Thr Asp Asp Ile Asn Arg Ala Cys 90 Leu Phe Val Pro Ser Ile Asp Val Leu Asn Gln Asn Thr Leu Arg Ile 100

Lys Glu Thr Ala Gln Ala Met Ala Gln Leu Ser Arg Trp Asp Arg Gly

Thr Asn His Leu Leu Phe Asn Met Leu Pro Gly Gly Pro Pro Asp Tyr

	130					135					140				
Asn 145	Thr	Ala	Leu	Asp	Val 150	Pro	Arg	Asp	Arg	Ala 155	Leu	Leu	Ala	Gly	Gly 160
Gly	Phe	Ser	Thr	Trp 165	Thr	туг	Arg	Gln	Gly 170	туг	Asp	Val	Ser	Ile 175	Pro
Val	Tyr	Ser	Pro 180	Leu	Ser	Ala	Glu	Val 185	Asp	Leu	Pro	Glu	Lys 190	Gly	Pro
Gly	Pro	Arg 195	Gln	Tyr	Phe	Leu	Leu 200	Ser	Ser	Gln	Va1	Gly 205	Leu	His	Pro
Glu	Туг 210	Arg	Glu	Asp	Leu	Glu 215	Ala	Leu	Gln	Val	Lys 220	His	Gly	Glu	Ser
Val 225	Leu	Val	Leu	Asp	Lys 230	Cys	Thr	Asn	Leu	Ser 235	Glu	Gly	Val	Leu	Ser 240
Val	Arg	Lys	Arg	Cys 245	His	Lys	His	Gln	Val 250	Phe	Asp	Tyr	Pro	Gln 255	Val
Leu	Gln	Glu	Ala 260	Thr	Phe	Cys	Val	Val 265	Leu	Arg	Gly	Ala	Arg 270	Leu	Gly
Gln	Ala	Val 275	Leu	Ser	Asp	Val	Leu 280	Gln	Ala	Gly	Cys	Val 285	Pro	Val	Val
Ile	Ala 290	Asp	Ser	Tyr	Ile	Leu 295	Pro	Phe	Ser	Glu	Val 300	Leu	Asp	Trp	Lys
Arg 305	Ala	Ser	Val	Val	Val 310	Pro	Glu	Glu	Lys	Met 315	Ser	Asp	Val	Tyr	Ser 320
Ile	Leu	Gln	Ser	11e 325	Pro	Gln	Arg	Gln	11e 330	Glu	Glu	Met	Gln	Arg 335	Gln
Ala	Arg	Trp	Phe 340	Trp	Glu	Ala	Tyr	Phe 345	Gln	Ser	Ile	Lys	Ala 350	Ile	Ala
Leu	Ala	Thr 355	Leu	Gln	Ile	Ile	Asn 360	Asp	Arg	Ile	Tyr	Pro 365	Tyr	Ala	Ala
Ile	Ser 370	Tyr	Glu	Glu	Trp	Asn 375	Asp	Pro	Pro	Ala	Val 380	Lys	Trp	Gly	Ser
Val 385	Ser	Asn	Pro	Leu	Phe 390	Leu	Pro	Leu	Ile	Pro 395	Pro	Gln	Ser	Gln	Gly 400
Phe	Thr	Ala	Ile	Val	Leu	Thr	Tyr	Asp	Arg	Val	Glu	Ser	Leu	Phe	Arq

620

				405					410					415	
Val	Ile	Thr	Glu 420	Val	Ser	Lys	Val	Pro 425	Ser	Leu	Ser	Lys	Leu 430	Leu	Val
Val	Trp	Asn 435	Asn	Gln	Asn	Lys	Asn 440	Pro	Pro	Glu	Asp	Ser 445	Leu	Trp	Pro
Lys	Ile 450	Arg	Val	Pro	Leu	Lys 455	Val	Val	Arg	Thr	Ala 460	Glu	Asn	Lys	Leu
Ser 465	Asn	Arg	Phe	Phe	Pro 470	Tyr	Asp	Glu	Ile	Glu 475	Thr	Glu	Ala	Val	Leu 480
Ala	Ile	Asp	Asp	Asp 485	Ile	Ile	Met	Leu	Thr 490	Ser	Asp	Glu	Leu	Gln 495	Phe
Gly	Tyr	Glu	Val 500	Trp	Arg	Glu	Phe	Pro 505	Asp	Arg	Leu	Val	Gly 510	Туr	Pro
Gly	Arg	Leu 515	His	Leu	Trp	Asp	His 520	Glu	Met	Asn	Lys	Trp 525	Lys	Tyr	Glu
Ser	Glu 530	Trp	Thr	Asn	Glu	Val 535	Ser	Met	Val	Leu	Thr 540	Gly	Ala	Ala	Phe
Туг 545	His	Lys	Tyr	Phe	Asn 550	Tyr	Leu	Tyr	Thr	Tyr 555	Lys	Met	Pro	Gly	Asp 560
Ile	Lys	Asn	Trp	Val 565	Asp	Ala	His	Met	Asn 570	Cys	Glu	Asp	Ile	Ala 575	Met
Asn	Phe	Leu	Val 580	Ala	Asn	Val	Thr	Gly 585	Lys	Ala	Val	Ile	Lys 590	Val	Thr
Pro	Arg	Lys 595	Lys	Phe	Lys	Cys	Pro 600	Glu	Cys	Thr	Ala	Ile 605	Asp	Gly	Leu
Ser	Leu 610	Asp	Gln	Thr	His	Met 615	Val	Glu	Arg	Ser	Glu 620	Суз	Ile	Asn	Lys
Phe 625	Ala	Ser	Val	Phe	Gly 630	Thr	Met	Pro	Leu	Lys 635	Val	Val	Glu	His	Arg 640
Ala	Asp	Pro	Val	Leu 645	Tyr	Lys	Asp	Asp	Phe 650	Pro	Glu	.Lys	Leu	Lys 655	Ser
DL -			-1 -	63		• • • •									

Phe Pro Asn Ile Gly Ser Leu 660

621

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<211> 176

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165

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623

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<400> 657

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Ser Arg Thr Ser Gly Ser Pro Gly Leu Xaa Glu Phe Gly Thr Ser Ala 20 25 30

Val Leu Leu Arg Leu Gly Asp Glu Leu Glu Met Ile Arg Pro Ser Val

Tyr Arg Asn Val Ala Arg Gln Leu His Ile Ser Leu Gln Ser Glu Pro 50 55 60

Val Val Thr Asp Ala Phe Leu Ala Val Ala Gly His Ile Phe Ser Ala 65 70 75 80

Gly Ile Thr Trp Gly Lys Val Val Ser Leu Tyr Ala Val Ala Ala Gly 85 90 95

Leu Ala Val Asp Cys Val Arg Gln Ala Gln Pro Ala Met Val His Ala 100 105 110

Leu Val Asp Cys Leu Gly Glu Phe Val Arg Lys Thr Leu Ala Thr Trp 115 120 125

Leu Arg Arg Gly Gly Trp Thr Asp Val Leu Lys Cys Val Val Ser 130 135 140

Thr Asp Pro Gly Leu Arg Ser His Trp Leu Val Ala Ala Leu Cys Ser 145 . 150 . 155 . 160

Phe Gly Arg Phe Leu Lys Ala Ala Phe Phe Val Leu Leu Pro Glu Arg 165 170 175

<210> 658

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Ala Phe Ser Ala Val Asp Thr Asp Gly Asn Gly Thr Ile Asn Ala Gln
Glu Leu Gly Ala Ala Leu Lys Ala Thr Gly Lys Asn Leu Ser Glu Ala
     50
                         55
Gln Leu Arg Lys Leu Ile Ser Glu Val Asp Xaa Asp Gly Asp Gly Glu
Ile Ser Phe Gln Glu Phe Leu Thr Ala Ala Xaa Lys Ala Arg Ala Gly
                 85
                                     90
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625

Leu Glu Asp Leu Xaa Val Ala Phe Arg Ala Phe Asp Gln Asp Gly Asp

Gly His Ile Thr Val Asp Glu Leu Arg Arg Ala Xaa Ala Gly Leu Gly
115 120 125

Xaa Leu Xaa Glu Ile Asp His Phe Gly 130 135

<210> 659

<211> 34

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<220>

<221> SITE

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<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 659

Pro Xaa Ser Arg Gln Asp Val Met Asp Ile Val Phe Ile Glu Gln Leu 1 5 10 15

Ser Val Ile Thr Thr Ile Gly Val Tyr Asp Trp Xaa Gln Xaa Ser Asn 20 25 30

Arg Ser

<210> 660

<211> 56

<212> PRT

<213> Homo sapiens

<400> 660

Asn Pro Ile Ser Pro Lys Asn Tyr Lys Lys Ile Ser Gln Ala Gln Ser 1 5 10 15

Gln Leu Pro Val Ile Pro Ala Thr Gln Glu Ala Glu Ser Gly Glu Ser 20 25 30

Leu Gly Pro Gly Ala Ala Glu Val Asn Ser Glu Pro Arg Leu His His
35 40 45

Arg Thr Pro Ala Trp Ile Thr Lys
50 55

<210> 661

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 661

Tyr Ile Gly Phe Val Ile Leu Val Phe Phe Ala Ser Ser Tyr Val Lys

1 5 10 15

Glu Ile Asp Asn Lys Ile Leu Asn Asn Lys Lys Lys Xaa Lys Xaa Ser 20 25 30

Ser Lys Gly Xaa Val Ala Xaa Ala Ile 35 40

<210> 662

<211> 524

<212> PRT <213> Homo sapiens <220> <221> SITE <222> (124) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (191) <223> Xaa equals any of the naturally occurring L-amino acids <400> 662 Cys Glu Ala Trp Arg Gly Arg Ala Asp Pro Gly Gln Ser Cys Leu Gln Ala Leu Gln Asn Ser Thr Ala Pro Gln His Pro Gly Leu His Arg 25 Trp Thr Gly Asp Arg Lys Met Pro Pro Arg Arg Asp Arg Gly Cys Asp 45 35 40 Pro Val Gly Asn Ile Pro Gln Gly Glu Ser Gly Gly Trp Trp Pro Glu Gly Ala Gly Asp Leu Leu Gly Ala Thr Pro Asp Arg Glu Ser Pro Gln Leu Pro Gly Gln Arg Leu Gln Pro His Pro Gln Gln Cys Leu His Gly Arg Arg Val Arg Gly Pro Ser Trp Arg Val Glu Ala Trp Gly Pro Gly 105 Leu His Val Phe Gly Pro Gly Gln Arg Trp Gly Xaa Ser Pro Gln Gly 125 115 120 Ile Pro Glu Leu Glu Gln Tyr Asp Pro Pro Glu Leu Ala Asp Ser Ser 135 Gly Arg Val Val Arg Glu Lys Trp Ser Ala Asp Met Trp Arg Leu Gly 150 155 Cys Leu Ile Trp Glu Val Phe Asn Gly Pro Leu Pro Arg Ala Ala Ala 170 165 Leu Arg Asn Pro Gly Lys Ile Pro Lys Thr Leu Val Pro His Xaa Cys 185 180

Lys Leu Val Gly Ala Asn Pro Lys Val Arg Pro Asn Pro Ala Arg Phe

		195					200					205			
Leu	Gln 210	Asn	Cys	Arg	Ala	Pro 215	Gly	Gly	Phe	Met	Ser 220	Asn	Arg	Phe	Val
Glu 225	Thr	Asn	Leu	Phe	Leu 230	Glu	Glu	Ile	Gln	Ile 235	Lys	Glu	Pro	Ala	Glu 240
Lys	Gln	Lys	Phe	Phe 245	Gln	Glu	Leu	Ser	Lys 250	Ser	Leu	Asp	Ala	Phe 255	Pro
Glu	Asp	Phe	Cys 260	Arg	His	Lys	Val	Leu 265	Pro	Gln	Leu	Leu	Thr 270	Ala	Phe
Glu	Phe	Gly 275	Asn	Ala	Gly	Ala	Val 280	Val	Leu	Thr	Pro	Leu 285	Phe	Lys	Val
Gly	Lys 290	Phe	Leu	Ser	Ala	Glu 295	Glu	Tyr	Gln	Gln	Lys 300	Ile	Ile	Pro	Val
Val 305	Val	Lys	Met	Phe	Ser 310	Ser	Thr	Asp	Arg	Ala 315	Met	Arg	Ile	Arg	Leu 320
Leu	Gln	Gln	Met	Glu 325	Gln	Phe	Ile	Gln	туг 330	Leu	Asp	Glu	Pro	Thr 335	Val
Asn	Thr	Gln	Ile 340	Phe	Pro	His	Val	Val 345	His	Gly	Phe	Leu	Asp 350	Thr	Asn
Pro	Ala	Ile 355	Arg	Glu	Gln	Thr	Val 360	Lys	Ser	Met	Leu	Leu 365	Leu	Ala	Pro
Lys	Leu 370	Asn	Glu	Ala	Asn	Leu 375	Asn	Val	Glu	Leu	Met 380	Lys	His	Phe	Ala
Arg 385	Leu	Gln	Ala	Lys	Asp 390	Glu	Gln	Gly	Pro	Ile 395	Arg	Cys	Asn	Thr	Thr 400
Val	Cys	Leu	Gly	Lys 405	Ile	Gly	Ser	Tyr	Leu 410	Ser	Ala	Ser	Thr	Arg 415	His
Arg	Val	Leu	Thr 420	Ser	Ala	Phe	Ser	Arg 425	Ala	Thr	Arg	Asp	Pro 430	Phe	Ala
Pro	Ser	Arg 435	Val	Ala	Gly	Val	Leu 440	Gly	Phe	Ala	Ala	Thr 445	His	Asn	Leu
Tyr	Ser 450	Met	Asn	Asp	Cys	Ala 455	Gln	Lys	Ile	Leu	Pro 460	Val	Leu	Cys	Gly .
Leu	Thr	Val	Asp	Pro	Glu	Lvs	Ser	Val	Arq	Asp	Gln	Ala	Phe	Lvs	Ala

629

470 475 480 465 Phe Gly Ala Ser Cys Pro Asn Trp Ser Leu Cys Arg Arg Thr Arg Pro 490 Ser Trp Arg Lys Trp Arg Arg Met Ser Met Gln Pro Pro Ala Leu Ala 505 510 500 Trp Glu Glu Pro Gln Leu Ala Gly Gln Ala. Gly Pro 520 <210> 663 <211> 272 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <400> 663 Pro Thr Leu Asp Ser Ala Arg Ser Leu Ser Met Arg Ala Pro Ser Leu Thr Pro Ser Ala Ala Pro Leu Ser Thr Trp Pro Leu Xaa Ile Leu Val 20 25 Arg Ser Gly His Asn Arg Ala Val Asp Trp Trp Ser Leu Gly Ala Leu Met Tyr Asp Met Leu Thr Gly Ser Pro Pro Phe Thr Ala Glu Asn Arg 50 Lys Lys Thr Met Asp Lys Ile Ile Arg Gly Lys Leu Ala Leu Pro Pro 75 Tyr Leu Thr Pro Asp Ala Arg Asp Leu Val Lys Lys Phe Leu Lys Arg 90 Asn Pro Ser Gln Arg Ile Gly Gly Pro Gly Asp Ala Ala Asp Val 105 100 Gln Arg His Pro Phe Phe Arg His Met Asn Trp Asp Asp Leu Leu Ala 120

Trp Arg Val Asp Pro Pro Phe Arg Pro Cys Leu Gln Ser Glu Glu Asp

135

Val Ser Gln Phe Asp Thr Arg Phe Thr Arg Gln Thr Pro Val Asp Ser 150 155 Pro Asp Asp Thr Ala Leu Ser Glu Ser Ala Asn Gln Ala Phe Leu Gly 165 170 Phe Thr Tyr Val Ala Pro Ser Val Leu Asp Ser Ile Lys Glu Gly Phe 185 Ser Phe Gln Pro Lys Leu Arg Ser Pro Arg Arg Leu Asn Ser Ser Pro 200 205 Arg Ala Pro Val Ser Pro Leu Lys Phe Ser Pro Phe Glu Gly Phe Arg Pro Ser Pro Ser Leu Pro Glu Pro Thr Glu Leu Pro Leu Pro Pro Leu 235 230 Leu Pro Pro Pro Pro Pro Ser Thr Thr Ala Pro Leu Pro Ile Arg Pro 245 Pro Ser Gly Thr Lys Lys Ser Lys Arg Gly Arg Gly Arg Pro Gly Arg

265

<210> 664

<211> 256

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 664

Gly Thr Arg Arg Glu Thr Trp Arg Pro Gly Ser Met Ala Gly Leu Glu
1 5 10 15

Leu Leu Ser Asp Gln Gly Tyr Arg Val Asp Gly Arg Arg Ala Gly Glu 20 25 30

Leu Arg Lys Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly 35 40 45

Ser Ala Tyr Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr 50 55 60

Gly Pro His Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg 65 70 75 80

Ala Leu Val Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu 85 90 95

Arg Lys Xaa Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu 100 105 110

Gln Leu Arg Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro 115 120 125

Arg Ser Gln Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly 130 140

Thr Tyr Ala Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala 145 150 155 160

Gly Ile Pro Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val
165 170 175

Asp Gly Thr Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly 180 185 190

Gly Pro Gln Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala 195 200 205

Leu Leu Glu Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val 210 215 220

Leu Glu Ala Ala Ala Gln Ala Ala Arg Asp Val His Thr Leu Leu Asp 225 230 235 240

Arg Val Val Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp \$245\$ \$250\$ \$255\$

<210> 665

<211> 241

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<22)	0> 1> s	ITE													
	2> (
	_	-	qual	s an	y of	the	nati	ural	ly o	ccur	ring	L-ar	mino	acio	is
<401	0> 6	65													
		-	Asp	Lys 5	Ala	Arg	Thr	Xaa	Pro 10	Pro	Ala	Ala	Ser	Ala 15	Arg
Pro	Ser	Arg	Ser 20	Lys	Arg	Gly	Gly	Glu 25	.Glu	Arg	Val	Leu	Glu 30	Lys	Glu
Glu	Glu	Glu 35	Asp	Asp	Asp	Glu	Asp 40	Glu	Asp	Glu	Glu	Asp 45	Asp	Val	Ser
Glu	Gly 50	Ser	Glu	Val	Pro	Glu 55	Ser	Asp	Arg	Pro	Ala 60	Gly	Ala	Gln	His
His 65	Gln	Leu	Asn	Gly	Glu 70	Arg	Gly	Pro	Gln	Ser 75	Ala	Lys	Glu	Arg	Val
Lys	Glu	Trp	Thr	Pro 85	Cys	Gly	Pro	His	Gln 90	Gly	Gln	Asp	Glu	Gly 95	Arg
Gly	Pro	Ala	Pro 100	Gly	Ser	Gly	Thr	Arg 105	Gln	Val	Phe	Ser	Met 110	Ala	Ala
Met	Asn	Lys 115	Glu	Gly	Gly	Thr	Ala 120	Ser	Xaa	Ala	Thr	Gly 125	Pro	Asp	Ser
Pro	Ser 130	Pro	Val	Pro	Leu	Pro 135	Pro	Gly	Lys	Pro	Ala 140	Leu	Pro	Gly	Ala
Asp 145	Gly	Thr	Pro	Phe	Gly 150	Cys	Pro	Pro	Gly	Arg 155	Lys	Glu	Lys	Pro	Ser 160
Asp	Pro	Val	Glu	Trp 165	Thr	Val	Met	Asp	Val 170	Val	Glu	Tyr	Phe	Thr 175	Glu
Ala	Gly	Phe	Pro 180	Glu	Gln	Ala	Thr	Val 185	Phe	Gln	Glu	Gln	Glu 190	Ile	Asp
Sly	Lys	Ser 195	Leu	Leu	Leu	Met	Gln 200	Arg	Thr	Asp	Val	Leu 205	Thr	Gly	Leu
Ser	Ile 210	Arg	Leu	Gly	Pro	Ala 215	Leu	Lys	Ile	Tyr	Glu 220	His	His	Ile	Lys
/al	Leu	Gln	Gln	Gly	His		Glu	Asp		Asp		Asp	Gly	Phe	Leu

633

Gly

<210> 666

<211> 131

<212> PRT

<213> Homo sapiens

<400> 666

Val Thr Gly Gly Gly Ala Val Val Leu Gly Ala Glu Ser His Ala Ser 1 5 10 15

Lys Asp Val Ala Ile Asp Met Met Asp Ser Arg Thr Ser Gln Gln Leu 20 25 30

Gln Leu Ile Asp Glu Gln Asp Ser Tyr Ile Gln Ser Arg Ala Asp Thr 35 40 45

Met Gln Asn Ile Glu Ser Thr Ile Val Glu Leu Gly Ser Ile Phe Gln 50 55 60

Gln Leu Ala His Met Val Lys Glu Gln Glu Glu Thr Ile Gln Arg Ile 65 70 75 80

Asp Glu Asn Val Leu Gly Ala Gln Leu Asp Val Glu Ala Ala His Ser 85 90 95

Glu Ile Leu Lys Tyr Phe Gln Ser Val Thr Ser Asn Arg Trp Leu Met 100 105 110

Val Lys Ile Phe Leu Ile Leu Ile Val Phe Phe Ile Ile Phe Val Val 115 120 125

Phe Leu Ala 130

<210> 667

<211> 652

<212> PRT

<213> Homo sapiens

<400> 667

Leu Ser Trp Asn Arg Tyr Thr Ser Val Ser Pro Leu His Arg Ser Leu

1 5 10 15

Gln Leu Pro Pro Arg Val Ser Gly Val Arg Cys Asp Gln Cys Ala Arg

WO 00/55173

			20					25					30		
Gly	Phe	Ser 35	Gly	Ile	Phe	Pro	Ala 40	Cys	His	Pro	Cys	His 45	Ala	Cys	Phe
Gly	Asp 50	Trp	Asp	Arg	Val	Val 55	Gln	Asp	Leu	Ala	Ala 60	Arg	Thr	Gln	Arg
Leu 65	Glu	Gln	Arg	Ala	Gln 70	Glu	Leu	Gln	Gln	Thr 75	Gly	Val	Leu	Gly	Ala 80
Phe	Glu	Ser	Ser	Phe 85	Trp	His	Met	Gln	Glu 90	Lys	Leu	Gly	Ile	Val 95	Gln
Gly	Ile	Val	Gly 100	Ala	Arg	Asn	Thr	Ser 105	Ala	Ala	Ser	Thr	Ala 110	Gln	Leu
Val	Glu	Ala 115	Thr	Glu	Glu	Leu	Arg 120	Arg	Glu	Ile	Gly	Glu 125	Ala	Thr	Glu
His	Leu 130	Thr	Gln	Leu	Glu	Ala 135	Asp	Leu	Thr	Asp	Val 140	Gln	Asp	Glu	Asn
Phe 145	Asn	Ala	Asn	His	Ala 150	Leu	Ser	Gly	Leu	Glu 155	Arg	Asp	Arg	Leu	Ala 160
Leu	Asn	Leu	Thr	Leu 165	Arg	Gln	Leu	Asp	Gln 170	His	Leu	Asp	Leu	Leu 175	Lys
His	Ser	Asn	Phe 180	Leu	Gly	Ala	Tyr	Asp 185	Ser	Ile	Arg	His	Ala 190	His	Ser
Gln	Ser	Ala 195	Glu	Ala	Glu	Arg	Arg 200	Ala	Asn	Thr	Ser	Ala 205	Leu	Ala	Val
Pro	Ser 210	Pro	Val	Ser	Asn	Ser 215	Ala	Ser	Ala	Arg	His 220	Arg	Thr	Glu	Ala
Leu 225	Met	Asp	Ala	Gln	Lys 230	Glu	Asp	Phe	Asn	Ser 235	Lys	His	Met	Ala	Asn 240
Gln	Arg	Ala	Leu	Gly 245	Lys	Leu	Ser	Ala	His 250	Thr	His	Thr	Leu	Ser 255	Leu
Thr	Asp	Ile	Asn 260	Glu	Leu	Val	Суз	Gly 265	Ala	Pro	Gly	Asp	Ala 270	Pro	Cys
Ala	Thr	Ser 275	Pro	Cys	Gly	Gly	Ala 280	Gly	Суз	Arg	Asp	Glu 285	Asp	Gly	Gln
Pro	Arg	Cys	Gly	Gly	Leu	Ser	Cys	Asn	Gly	Ala	Ala	Ala	Thr	Ala	Asp

	290					295					300				
Leu 305	Ala	Leu	Gly	Arg	Ala 310	Arg	His	Thr	Gln	Ala 315	Glu	Leu	Gln	Arg	Ala 320
Leu	Ala	Glu	Gly	Gly 325	Ser	Ile	Leu	Ser	Arg 330	Val	Ala	Glu	Thr	Arg 335	Arg
Gln	Ala	Ser	Glu 340	Ala	Gln	Gln	Arg	Ala 345	Gln	Ala	Ala	Leu	Asp 350	Lys	Ala
Asn	Ala	Ser 355	Arg	Gly	Gln	Val	Glu 360	Gln	Ala	Asn	Gln	Glu 365	Leu	Gln	Glu
Leu	Ile 370	Gln	Ser	Val	Lys	Asp 375	Phe	Leu	Asn	Gln	Glu 380	Gly	Ala	Asp	Pro
Asp 385	Ser	Ile	Glu	Met	Val 390	Ala	Thr	Arg	Val	Leu 395	Glu	Leu	Ser	Ile	Pro 400
Ala	Ser	Ala	Glu	Gln 405	Ile	Gln	His	Leu	Ala 410	Gly	Ala	Ile	Ala	Glu 415	Arg
Val	Arg	Ser	Leu 420	Ala	Asp	Val	Asp	Ala 425	Ile	Leu	Ala	Arg	Thr 430	Val	Gly
Asp	Val	Arg 435	Arg	Ala	Glu	Gln	Leu 440	Leu	Gln	Asp	Ala	Arg 445	Arg	Ala	Arg
Ser	Trp 450	Ala	Glu	Asp	Glu	Lys 455	Gln	Lys	Ala	Glu	Thr 460	Val	Gln	Ala	Ala
Leu 465	Glu	Glu	Ala	Gln	Arg 470	Ala	Gln	Gly	Ile	Ala 475	Gln	Gly	Ala	Ile	Arg 480
Gly	Ala	Val	Ala	Asp 485	Thr	Arg	Asp	Thr	Glu 490	Gln	Thr	Leu	Tyr	Gln 495	Val
Gln	Glu	Arg	Met 500	Ala	Gly	Ala	Glu	Arg 505		Leu	Ser	Ser	Ala 510	Gly	Glu
Arg	Ala	Arg 515	Gln	Leu	Asp	Ala _,	Leu 520	Leu	Glu	Ala	Leu	Lys 525	Leu	Lys	Arg
Ala	Gly 530	Asn	Ser	Leu	Ala	Ala 535	Ser	Thr	Ala	Glu	Glu 540	Thr	Ala	Gly	Ser
Ala 545	Gln	Gly	Arg	Ala	Gln 550	Glu	Ala	Glu	Gln	Leu 555	Leu	Arg	Gly	Pro	Leu 560
Gly	Asp	Gln	Tyr	Gln	Thr	Val	Lys	Ala	Leu	Ala	Glu	Arg	Lys	Ala	Gln

636

575 565 570 Gly Val Leu Ala Ala Gln Ala Arg Ala Glu Gln Leu Arg Asp Glu Ala 585 Arg Asp Leu Ceu Gln Ala Ala Gln Asp Lys Leu Gln Arg Leu Gln Glu 600 605 Leu Glu Gly Thr Tyr Glu Glu Asn Glu Arg Ala Leu Glu Ser Lys Ala Ala Gln Leu Asp Gly Leu Glu Ala Arg Met Arg Ser Val Leu Gln Ala 635 Ile Asn Leu Gln Val Gln Ile Tyr Asn Thr Cys Gln 645 <210> 668 <211> 406 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <400> 668 Gly Ala Val Arg Ser Ser Cys Ala Glu Leu Gln Ala Arg Val Met Ala 10 Ala Leu Arg Gln Pro Gln Val Ala Glu Cys Trp Pro Arg Pro Gly Glu 20 25 Pro Ser Gly Arg Ser Ser Gly Pro Ser Pro Ser Trp Pro Cys Gln Arg 40 . Arg Ala Ala Cys Asn Leu Ile Gly Glu His Thr Asp Tyr Asn Gln Gly Leu Val Leu Pro Met Ala Leu Glu Leu Met Thr Val Leu Val Gly Ser 65 70 Pro Arg Lys Xaa Gly Leu Val Ser Leu Leu Thr Thr Ser Glu Gly Ala

Asp Glu Pro Gln Arg Leu Gln Phe Pro Leu Pro Thr Ala Gln Arg Ser

105

200	014	115	-	1112	110	nrg	120		ASII	TYL	Val	125	Gly	vai	110
Gln	Tyr 130	Tyr	Pro	Ala	Ala	Pro 135	Leu	Pro	Gly	Phe	Ser 140	Ala	Val	Val	Val
Ser 145	Ser	Val	Pro	Leu	Gly 150	Gly	Gly	Leu	Ser	Ser 155	Ser	Ala	Ser	Leu	Glu 160
Val	Ala	Thr	туr	Thr 165	Phe	Leu	Gln	Gln	Leu 170	Cys	Pro	Asp	Ser	Gly 175	Thr
Ile	Ala	Ala	Arg 180	Ala	Gln	Val	Cys	Gln 185	Gln	Ala	Glu	His	Ser 190	Phe	Ala
		195					200				Ser	205			
Lys	Gly 210	His	Ala	Leu	Leu	Ile 215	Asp	Суѕ	Arg	Ser	Leu 220	Glu	Thr	Ser	Leu
225					230					235	Ile				240
·				245					250		Val			255	
			260					265			Ser		270		
31n	Leu	Glu 275	Glu	Leu	Glu	Ala	Ala 280	Arg	Asp	Leu	Val	Ser 285	Lys	Glu	Gly
?he	Arg 290	Arg	Ala	Arg	His	Val 295	Val	Gly	Glu	Ile	Arg 300	Arg	Thr	Ala	Gln
Ala 305	Ala	Ala	Ala	Leu	Arg 310	Arg	Gly	Asp	Tyr	Arg 315	Ala	Phe	Gly	Arg	Leu 320
1et	Val	Glu	Ser	His 325	Arg	Ser	Leu	-	330	-	Tyr	Glu		Ser 335	-
			340					345			Ala		350	_	
		355					360				Gly	365			
eu	Leu 370	Glu	Ala	Ser	Ala	Ala 375	Pro	His	Ala	Met	Arg 380	His	Ile	Gln	Glu

638

His Tyr Gly Gly Thr Ala Thr Phe Tyr Leu Ser Gln Ala Ala Asp Gly 385 390 395 400

Ala Lys Val Leu Cys Leu 405

<210> 669

<211> 86

<212> PRT

<213> Homo sapiens

<400> 669

Pro Glu Pro Thr Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly
1 5 10

Leu Val Leu Ala Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly
20 25 30

Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg Val Asp Cys
35 40 45

Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg Gly Cys Cys 50 60

Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys Phe Lys Pro Leu Gln 65 70 75 80

Glu Ala Glu Cys Thr Phe 85

<210> 670

<211> 392

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 670

Gly Gly Gly Ala Arg Xaa Ser Pro Ala Thr Gln Pro Pro Leu Leu 1 5 10 15

Pro Pro Ser Ala Thr Gly Pro Asp Ala Thr Val Gly Gly Pro Ala Pro
20 25 30

Thr Pro Leu Leu Pro Pro Ser Ala Thr Ala Ser Val Lys Met Glu Pro 40 Glu Asn Lys Tyr Leu Pro Glu Leu Met Ala Glu Lys Asp Ser Leu Asp 55 Pro Ser Phe Thr His Ala Met Gln Leu Leu Thr Ala Glu Ile Glu Lys Ile Gln Lys Gly Asp Ser Lys Lys Asp Asp Glu Glu Asn Tyr Leu Asp Leu Phe Ser His Lys Asn Met Lys Leu Lys Glu Arg Val Leu Ile Pro Val Lys Gln Tyr Pro Lys Phe Asn Phe Val Gly Lys Ile Leu Gly Pro 120 Gln Gly Asn Thr Ile Lys Arg Leu Gln Glu Glu Thr Gly Ala Lys Ile 130 Ser Val Leu Gly Lys Gly Ser Met Arg Asp Lys Ala Lys Glu Glu Glu 150 155 Leu Arg Lys Gly Gly Asp Pro Lys Tyr Ala His Leu Asn Met Asp Leu 165 170 His Val Phe Ile Glu Val Phe Gly Pro Pro Cys Glu Ala Tyr Ala Leu 185 Met Ala His Ala Met Glu Glu Val Lys Lys Phe Leu Val Pro Asp Met 200 Met Asp Asp Ile Cys Gln Glu Gln Phe Leu Glu Leu Ser Tyr Leu Asn Gly Val Pro Glu Pro Ser Arg Gly Arg Gly Val Pro Val Arg Gly Arg Gly Ala Ala Pro Pro Pro Pro Val Pro Arg Gly Arg Gly Val Gly Pro Pro Arg Gly Ala Leu Val Arg Gly Thr Pro Val Arg Gly Ala Ile Thr Arg Gly Ala Thr Val Thr Arg Gly Val Pro Pro Pro Pro Thr Val

Arg Gly Ala Pro Ala Pro Arg Ala Arg Thr Ala Gly Ile Gln Arg Ile

295

640

Pro Leu Pro Pro Pro Pro Ala Pro Glu Thr Tyr Glu Glu Tyr Gly Tyr

Asp Asp Thr Tyr Ala Glu Gln Ser Tyr Glu Gly Tyr Glu Gly Tyr Tyr
325 330 335

Ser Gln Ser Gln Gly Asp Ser Glu Tyr Tyr Asp Tyr Gly His Gly Glu 340 345 350

Val Gln Asp Ser Tyr Glu Ala Tyr Gly Gln Asp Asp Trp Asn Gly Thr 355 360 365

Arg Pro Ser Leu Lys Ala Pro Pro Ala Arg Pro Val Lys Gly Ala Tyr 370 375 380

Arg Glu His Pro Tyr Gly Arg Tyr 385 390

<210> 671

<211> 180

<212> PRT

<213> Homo sapiens

<400> 671

Arg Asn Met Ser Ser Phe Ser Arg Ala Pro Gln Gln Trp Ala Thr Phe 1 5 10 15

Ala Arg Ile Trp Tyr Leu Leu Asp Gly Lys Met Gln Pro Pro Gly Lys
20 25 30

Leu Ala Ala Met Ala Ser Ile Arg Leu Gln Gly Leu His Lys Pro Val $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Tyr His Ala Leu Ser Asp Cys Gly Asp His Val Val Ile Met Asn Thr 50 55 60

Arg His Ile Ala Phe Ser Gly Asn Lys Trp Glu Gln Lys Val Tyr Ser 65 70 75 80

Ser His Thr Gly Tyr Pro Gly Gly Phe Arg Gln Val Thr Ala Ala Gln 85 90 95

Leu His Leu Arg Asp Pro Val Ala Ile Val Lys Leu Ala Ile Tyr Gly
100 105 110

Met Leu Pro Lys Asn Leu His Arg Arg Thr Met Met Glu Arg Leu His 115 120 125

Leu Phe Pro Asp Glu Tyr Ile Pro Glu Asp Ile Leu Lys Asn Leu Val

641

130 135 140

Glu Glu Leu Pro Gln Pro Arg Lys Ile Pro Lys Arg Leu Asp Glu Tyr 145 150 155 160

Thr Gln Glu Glu Ile Asp Ala Phe Pro Arg Leu Trp Thr Pro Pro Glu 165 170 175

Asp Tyr Arg Leu 180

<210> 672

<211> 78

<212> PRT

<213> Homo sapiens

<400> 672

Glu Asn Tyr Gln Phe Thr Tyr Arg Arg Phe Phe Phe Pro Asn Ser Arg 1 5 10 15

Phe His Pro Arg Pro Phe Glu Glu Leu Gln Thr Leu Ser Leu Arg Lys
20 25 30

Glu Arg Gly Gln Pro Lys Ile Asn Ala Lys Phe Ala Tyr Thr Pro Ser 35 40 45

His Ser Asp Val Leu Val Val Thr Tyr Tyr Gln Cys Gly Arg Glu Pro 50 60

Lys Leu His Phe Arg Ser Lys Tyr Ser Leu Cys Arg Tyr Cys 65 70 75

<210> 673

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

642

<400> 673 Pro Thr Arg Pro Pro Leu Cys Arg Gly Ala Ala Ser Arg Gly Leu Leu Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Gly Arg Leu Gly Ser 40 Thr Ser Ser Asn Ser Ser Cys Ser Ser Thr Glu Cys Pro Gly Glu Ala 55 Ile Pro His Pro Pro Gly Leu Pro Lys Ala Asp Pro Gly His Trp Trp 70 Ala Ser Phe Phe Gly Lys Ser Thr Leu Pro Phe Met Ala Thr Val Leu Glu Ser Ala Glu His Ser Glu Pro Pro Gln Ala Ser Ser Ser Met Xaa Ala Cys Gly Leu Ala Arg Glu Ala Pro Arg Lys Gln Pro Gly Gly 115 120 Gln Ser Ser Xaa Ala Ser Ala Gly Pro Pro Ser 130 135 <210> 674 <211> 279 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (58) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (193) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 674

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Glu	Asp	туг	Lys 20	Tyr	Ile	Ser	Glu	Asn 25	Cys	Glu	Thr	Ser	Thr 30	Met	Asn
Ile	Asp	Arg 35	Asn	Ile	Thr	His	Leu 40	Gln	His	Cys	Thr	Phe 45	Val	Asp	Asp
Cys	Ser 50	Ser	Ser	Asn	Cys	Leu 55	Cys	Gly	Xaa	Phe	Ser 60	Ile	Arg	Cys	Trp
Туг 65	Asp	Lys	Asp	Gly	Arg 70	Leu	Leu	Gln	Glu	Phe 75	Asn	Lys	Ile	Glu	Pro 80
Pro	Leu	Ile	Phe	Glu 85	Суз	Asn	Gln	Ala	Суs 90	Ser	Cys	Trp	Arg	Asn 95	Суз
			Val 100					105					110		_
		115	Lys				120					125			
	130		Phe			135					140				
145			Val		150					155					160
			Glu	165					170					175	
			11e 180					185					190		
		195	Leu				200					205			
	210		Asp			215					220				
Asp 225	Arg	Phe	Trp	Asp	11e 230	Lys	Ser	Lys	Tyr	Phe 235	Thr	Суз	Gln	Cys	Gly 240
			Cys	245					250					255	
Arg	Leu	Ala	Arg	Leu	Asp	Pro	His	Pro	Glu	Leu	Leu	Pro	Glu	Leu	Gly

Ser Leu Pro Pro Val Asn Thr 275

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145

<210> 675 <211> 405 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (393) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (394) <223> Xaa equals any of the naturally occurring L-amino acids <400> 675 Arg Asn Thr Leu Gly Arg Gly Thr Thr Ile Thr Leu Val Leu Lys Glu Glu Ala Ser Asp Tyr Leu Glu Leu Asp Thr Ile Lys Asn Leu Val Lys 20 25 Lys Tyr Ser Gln Phe Ile Asn Phe Pro Ile Tyr Val Trp Ser Ser Lys 40 Thr Glu Thr Val Glu Glu Pro Met Glu Glu Glu Ala Ala Lys Glu 55 Glu Lys Glu Glu Ser Asp Asp Glu Ala Ala Val Glu Glu Glu Glu Glu 65 75 Glu Lys Lys Pro Lys Thr Lys Lys Val Glu Lys Thr Val Trp Asp Trp Glu Leu Met Asn Asp Ile Lys Pro Ile Trp Gln Arg Pro Ser Lys Glu 105 Val Glu Glu Asp Glu Tyr Lys Ala Phe Tyr Lys Ser Phe Ser Lys Glu 120 Ser Asp Asp Pro Met Ala Tyr Ile His Phe Thr Ala Glu Gly Glu Val

Thr Phe Lys Ser Ile Leu Phe Val Pro Thr Ser Ala Pro Arg Gly Leu

155

Phe	Asp	Glu	Tyr	Gly 165	Ser	Lys	Lys	Ser	Asp 170		Ile	Lys	Leu	Tyr 175	Val
Arg	Arg	Val	Phe 180	Ile	Thr	Asp	Asp	Phe 185	His	Asp	Met	Met	Pro 190	Lys	Tyr
Leu	Asn	Phe 195	Val	Lys	Gly	Val	Val 200	Asp	Ser	Asp	Asp	Leu 205	Pro	Leu	Asn
Val	Ser 210	Arg	Glu	Thr	Leu	Gln 215	Gln	His	Lys	Leu	Leu 220	Lys	Val	Ile	Arg
Lys 225	Lys	Leu	Val	Arg	Lys 230	Thr	Leu	Asp	Met	11e 235	Lys	Lys	Ile	Ala	Asp 240
Asp	Lys	Tyr	Asn	Asp 245	Thr	Phe	Trp	Lys	Glu 250	Phe	Gly	Thr	Asn	Ile 255	Lys
Leu	Gly	Val	Ile 260	Glu	Asp	His	Ser	Asn 265	Arg	Thr	Arg	Leu	Ala 270	Lys	Leu
Leu	Arg	Phe 275	Gln	Ser	Ser	His	His 280	Pro	Thr	Asp	Ile	Thr 285	Ser	Leu	Asp
Gln	Tyr 290	Val	Glu	Arg	Met	Lys 295	Glu	Lys	Gln	Asp	Lys 300	Ile	Tyr	Phe	Met
Ala 305	Gly	Ser	Ser	Arg	Lys 310	Glu	Ala	Glu	Ser	Ser 315	Pro	Phe	Val	Glu	Arg 320
Leu	Leu	Lys	Lys	Gly 325	Tyr	Glu	Val	Ile	туr 330	Leu	Thr	Glu	Pro	Val 335	Asp
Glu	Tyr	Cys	Ile 340	Gln	Ala	Leu	Pro	Glu 345	Phe	Asp	Gly	Lys	Arg 350	Phe	Gln
Asn	Val	Ala 355	Lys	Glu	Gly	Val	Lys 360	Phe	Asp	Glu	Ser	Glu 365	Lys	Thr	Lys
Glu	Ser 370	Arg	Glu	Ala	Val	Glu 375	Lys	Glu	Phe	Glu	Pro 380	Leu	Leu	Asn	Trp
Met 385	Lys	Asp	Lys	Ala	Leu 390	Lys	Gly	Xaa	Xaa	Leu 395	Trp	Glu	Ile	Leu	Pro 400
Ile	Cys	Gly	Lys	Tyr 405											

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646

<211> 465 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (6) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (16) <223> Xaa equals any of the naturally occurring L-amino acids <400> 676 Asn Asp Ser Leu Xaa Xaa Lys Ala Gly Thr Pro Ala Gly Asn Arg Xaa 10 15 Gly Ile Pro Gly Ser Thr His Ala Ser Ala Ala Ala Pro Phe Ala Ala Ala Leu Ala Arg Asp Pro Asn Pro Ala Ser Pro Leu Pro Glu His Arg 40 Pro Arg Leu His Arg Gly Pro Gly Pro Pro Ala Arg Leu Ala Ala Ala . 55 60 Met Ala Asp Pro Lys Tyr Ala Asp Leu Pro Gly Ile Ala Arg Asn Glu Pro Asp Val Tyr Glu Thr Ser Asp Leu Pro Glu Asp Asp Gln Ala Glu 90 Phe Asp Ala Glu Glu Leu Thr Ser Thr Ser Val Glu His Ile Ile Val 100 105 Asn Pro Asn Ala Ala Tyr Asp Lys Phe Lys Asp Lys Arg Val Gly Thr 120 Lys Gly Leu Asp Phe Ser Asp Arg Ile Gly Lys Thr Lys Arg Thr Gly 130 135 Tyr Glu Ser Gly Glu Tyr Glu Met Leu Gly Glu Gly Leu Gly Val Lys 150 Glu Thr Pro Gln Gln Lys Tyr Gln Arg Leu Leu His Glu Val Gln Glu

				163			•		170					1/5	
Leu	Thr	Thr	Glu 180		Glu	Lys	Ile	Lys 185	Thr	Thr	Val	Lys	Glu 190	Ser	Ala
Thr	Glu	Glu 195		Leu	Thr	Pro	Val 200		Leu	Ala	Lys	Gln 205	Leu	Ala	Ala
Leu	Lys 210		Gln	Leu	Val	Ala 215		His	Leu	Glu	Lys 220	Leu	Leu	Gly	Pro
Asp 225		Ala	Ile	Asn	Leu 230		Asp	Pro	Asp	Gly 235	Ala	Leu	Ala	Lys	Arg 240
Leu	Leu	Leu	Gln	Leu 245			Thr	Lys	Asn 250	Ser	Lys	Gly	Gly	Ser 255	Gly
Gly	Lys	Thr	Thr 260	Gly	Thr	Pro	Pro	Asp 265	Ser	Ser	Leu	Val	Thr 270	Tyr	Glu
		275					280		Phe			285			
	290					295			Leu		300				
305					310				Ala	315					320
Leu	Met	Glu	Thr	Val 325	Glu	Leu	Leu	Gln	Ala 330	Lys	Val	Ser	Ala	Leu 335	Asp
Leu	Ala	Val	Leu 340	Asp	Gln	Val	Glu	Ala 345	Arg	Leu	Gln	Ser	Val 350	Leu	Gly
Lys	Val	Asn 355	Glu	Ile	Ala	Lys	His 360	Lys	Ala	Ser	Val	Glu 365	Asp	Ala	Asp
Thr	Gln 370	Ser	Lys	Val	His	Gln 375	Leu	Tyr	Glu	Thr	Ile 380	Gln	Arg	Trp	Ser
Pro 385	Ile	Ala	Ser	Thr	Leu 390	Pro	Glu	Leu	Val	Gln 395	Arg	Leu	Val	Thr	11e 400
Lys	Gln	Leu	His	Glu 405	Gln	Ala	Met	Gln	Phe 410	Gly	Gln	Leu	Leu	Thr 415	His
Leu	Asp	Thr	Thr 420	Gln	Gln	Met	Ile	Ala 425	Asn	Ser	Leu	Lys	Asp 430	Asn	Thr
Thr	Leu	Len	Thr	Gln	Val	Gln	Thr	Thr	Met	Ara	Glu	Asn	T.Au	A 1 a	Th.

648

435 440 445

Val Glu Gly Asn Phe Ala Ser Ile Asp Glu Arg Met Lys Lys Leu Gly 450 455 460

Lys 465

<210> 677

<211> 48

<212> PRT

<213> Homo sapiens

<400> 677

Ser Ser Phe Leu Asn Ser Asp Leu Gly Leu Ser Leu Ala Arg Asn Leu l 5 10 15

Ala Phe Ser Phe Thr Thr Lys Glu Arg Asp Gln Lys Pro Leu Ile Phe
20 25 30

Asn Phe His Lys Met Leu Glu Val Tyr Ile Tyr Ile Tyr Ile Phe Leu 35 40 45

<210> 678

<211> 940

<212> PRT

<213> Homo sapiens

<400> 678

Val Leu Gly Glu Gly Ile Ser Phe Leu Leu Ser Pro Pro Leu Pro Thr

Pro Ser Ile Asn Ile Ile Leu Leu Lys Ile Leu Arg Cys Gln Ala Ala 20 25 30

Lys Val Glu Ser Ala Ile Ala Glu Gly Gly Ala Ser Arg Phe Ser Ala 35 40 45

Ser Ser Gly Gly Gly Ser Arg Gly Ala Pro Gln His Tyr Pro Lys 50 60

Thr Ala Gly Asn Ser Glu Phe Leu Gly Lys Thr Pro Gly Gln Asn Ala 65 70 75 80

	Gln	Lys	Trp	Ile	Pro 85	Ala	Arg	Ser	Thr	Arg 90	Arg	Asp	Asp	Asn	Ser 95	Ala
	Ala	Asn	Asn	Ser 100	Ala	Asn	Glu	Lys	Glu 105	Arg	His	Asp	Ala	Ile 110	Phe	Arg
	Lys	Val	Arg 115	Gly	Ile	Leu	Asn	Lys 120	Leu	Thr	Pro	Glu	Lys 125	Phe	Asp	Lys
:	Leu	Cys 130	Leu	Glu	Leu	Leu	Asn 135	Val	Gly	Val	Glu	Ser 140	Lys	Leu	Ile	Leu
	Lys 145	Gly	Val	Ile	Leu	Leu 150	Ile	Val	Asp	Lys	Ala 155	Leu	Glu	Glu	Pro	Lys 160
•	Tyr	Ser	Ser	Leu	туг 165	Ala	Gln	Leu	Суѕ	Leu 170	Arg	Leu	Ala	Glu	Asp 175	Ala
1	Pro	Asn	Phe	Asp 180	Gly	Pro	Ala	Ala	Glu 185	Gly	Gln	Pro	Gly	Gln 190	Lys	Gln
:	Ser	Thr	Thr 195	Phe	Arg	Arg	Leu	Leu 200	Ile	Ser	Lys	Leu	Gln 205	Asp	Glu	Phe
(Glu	Asn 210	Arg	Thr	Arg	Asn	Val 215	Asp	Val	Tyr	Asp	Lys 220	Arg	Glu	Asn	Pro
	Leu 225	Leu	Pro	Glu	Glu	Glu 230	Glu	Gln	Arg	Ala	11e 235	Ala	Lys	Ile	Lys	Met 240
1	Leu	Gly	Asn	Ile	Lys 245	Phe	Ile	Gly	Glu	Leu 250	Gly	Lys	Leu	Asp	Leu 255	Ile
I	lis	Glu	Ser	Ile 260	Leu	His	Lys	Cys	Ile 265	Lys	Thr	Leu	Leu	Glu 270	Lys	Lys
1	.ys	Arg	Val 275	Gln	Leu	Lys	Asp	Met 280	Gly	Glu	Asp	Leu	Glu 285	Cys	Leu	Cys
(3ln	Ile 290	Met	Arg	Thr	Val	Gly 295	Pro	Arg	Leu	Asp	His 300	Glu	Arg	Ala	Lys
	Ser 305	Leu	Met	Asp	Gln	Туг 310	Phe	Ala	Arg	Met	Cys 315	Ser	Leu	Met	Leu	Ser 320
I	ys	Glu	Leu	Pro	Ala 325	Arg	Ile	Arg	Phe	Leu 330	Leu	Gln	Asp	Thr	Val 335	Glu
Ι	eu	Arg	Glu	His 340	His	Trp	Val	Pro	Arg 345	Lys	Ala	Phe	Leu	Asp 350	Asn	Gly

PTO	гàг	355	116	Asn	GIN	11e	360	GIn	Asp	Ala	Val	365	Asp	Leu	GIÀ
Val	Phe 370	Ile	Pro	Ala	Pro	Met 375	Ala	Gln	Gly	Met	Arg 380	Ser	Asp	Phe	Phe
Leu 385	Glu	Gly	Pro	Phe	Met 390	Pro	Pro	Arg	Met	Lys 395	Met	Asp	Arg	Asp	Pro 400
Leu	Gly	Gly	Leu	Ala 405	Asp	Met	Phe	Gly	Gln 410	Met	Pro	Gly	Ser	Gly 415	Ile
Gly	Thr	Gly	Pro 420	Gly	Val	Ile	Gln	Asp 425	Arg	Phe	Ser	Pro	Thr 430	Met	Gly
Arg	His	Arg 435	Ser	Asn	Gln	Leu	Phe 440	Asn	Gly	His	Gly	Gly 445	His	Ile	Met
Pro	Pro 450	Thr	Gln	Ser	Gln	Phe 455	Gly	Glu	Met	Gly	Gly 460	Lys	Phe	Met	Lys
Ser 465	Gln	Gly	Leu	Ser	Gln 470	Leu	Tyr	His	Asn	Gln 475	Ser	Gln	Gly	Leu	Leu 480
				Gly 485			•		490					495	
			500	Asn				505					510		
Phe	Leu	Met 515	Asn	Lys	Asn	Gln	Val 520	Pro	Lys	Leu	Gln	Pro 525	Gln	Ile	Thr
Met	11e 530	Pro	Pro	Ser	Ala	Gln 535	Pro	Pro	Arg	Thr	Gln 540	Thr	Pro	Pro	Leu
31y 545	Gln	Thr	Pro	Gln	Leu 550	Gly	Leu	Lys	Thr	Asn 555	Pro	Pro	Leu	Ile	G1n 560
31u	Lys	Pro	Ala	Lys 565	Thr'	Ser	Lys	Lys	Pro 570	Pro	Pro	Ser	Lys	G1u 575	Glu
			580	Thr				585					590		
		595		Ala			600					605			
lis	Phe 610	Leu	Pro	Glu	Met	Leu 615	Ser	Lys	Val	Ile	Ile 620	Leu	Ser	Leu	Asp

Arg 625		Asp	Glu	Asp	Lys 630	Glu	Lys	Ala	Ser	Ser 635		Ile	Ser	Leu	Let 640
Lys	Gln	Glu	Gly	Ile 645		Thr	Ser	Asp	Asn 650		Met	Gln	Ala	Phe 655	Leu
Asn	Val	Leu	Asp 660	Gln	Cys	Pro	Lys	Leu 665	Glu	Val	Asp	Ile	Pro 670	Leu	Va]
Lys	Ser	Туг 675		Ala	Gln	Phe	Ala 680	Ala	Arg	Ala	Ile	11e 685	Ser	Glu	Leu
Val	Ser 690		Ser	Glu	Leu	Ala 695	Gln	Pro	Leu	Glu	Ser 700	Gly	Thr	His	Phe
Pro 705	Leu	Phe	Leu	Leu	Cys 710	Leu	Gln	Gln	Leu	Ala 715	Lys	Leu	Gln	Asp	Arg 720
Glu	Trp	Leu	Thr	Glu 725	Leu	Phe	Gln	Gln	Ser 730	Lys	Val	Asn	Met	Gln 735	Lys
Met	Leu	Pro	Glu 740	Ile	Asp	Gln	Asn	Lys 745	Asp	Arg	Met	Leu	Glu 750	Ile	Leu
Glu	Gly	Lys 755	Gly	Leu	Ser	Phe	Leu 760	Phe	Pro	Leu	Leu	Lys 765	Leu	Glu	Lys
Glu	Leu 770	Leu	Lys	Gln	Ile	Lys 775	Leu	Asp	Pro	Ser	Pro 780	Gln	Thr	Ile	Tyr
Lys 785	Trp	Ile	Lys	Asp	Asn 790	Ile	Ser	Pro	Lys	Leu 795	His	Val	Asp	Lys	Gly 800
Phe	Val	Asn	Ile	Leu 805	Met	Thr	Ser	Phe	Leu 810	Gln	Tyr	Ile	Ser	Ser 815	Glu
/al	Asn	Pro	Pro 820	Ser	Asp	Glu	Thr	Asp 825	Ser	Ser	Ser	Ala	Pro 830	Ser	Lys
Glu	Gln	Leu 835	Glu	Gln	Glu	Lys	Gln 840	Leu	Leu	Leu	Ser	Phe 845	Lys	Pro	Val
let	Gln 850	Lys	Phe	Leu	His	Asp 855	His	Val	Asp	Leu	Gln 860	Val	Ser	Ala	Leu
уг 165	Ala	Leu	Gln	Val	His 870	Cys	Tyr	Asn	Ser	Asn 875	Phe	Pro	Lys	Gly	Met 880
eu	Leu	Arg	Phe	Phe 885	Val	His	Phe	Tyr	Asp 890	Met	Glu	Ile	Ile	Glu 895	Glu

Glu Ala Phe Leu Ala Trp Lys Glu Asp Ile Thr Gln Glu Phe Pro Gly 900 905 910

Lys Gly Lys Ala Leu Phe Gln Val Asn Gln Trp Leu Thr Trp Leu Glu 915 920 925

Thr Ala Glu Glu Glu Glu Ser Glu Glu Glu Ala Asp 930 935 940

<210> 679

<211> 212

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (172)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 679

Ser Trp Lys Glu Glu Glu Xaa Lys Pro His Leu Gln Gly Lys Pro Gly
1 5 10 15

Arg Pro Leu Ser Pro Ala Asn Val Pro Ala Leu Pro Gly Glu Thr Val 20 25 30

Thr Ser Pro Val Arg Leu His Pro Asp Tyr Leu Ser Pro Glu Glu Ile 35 40 45

Gln Arg Gln Leu Gln Asp Ile Glu Arg Arg Leu Asp Ala Leu Glu Leu 50 55 60

Arg Gly Val Glu Leu Glu Lys Arg Leu Arg Ala Ala Glu Gly Asp Asp 65 70 75 80

Ala Glu Asp Ser Leu Met Val Asp Trp Phe Trp Leu Ile His Glu Lys 85 90 95

Gln Leu Leu Arg Gln Glu Ser Glu Leu Met Tyr Lys Ser Lys Ala

653

100 105 110 Gln Arg Leu Glu Glu Gln Gln Leu Asp Ile Glu Gly Glu Leu Arg Arg 120 Leu Met Ala Lys Pro Glu Ala Leu Lys Ser Leu Gln Glu Arg Arg Arg 130 135 140 Glu Gln Glu Leu Leu Glu Gln Tyr Val Ser Thr Val Asn Asp Arg Xaa 150 Asp Ile Val Asp Ser Leu Asp Glu Asp Arg Leu Xaa Glu Gln Glu Glu 165 170 Asp Gln Met Leu Arg Asp Met Ile Glu Lys Leu Gly Leu Gln Arg Lys 180 Lys Ser Lys Phe Arg Leu Ser Lys Ile Trp Ser Pro Lys Ser Lys Ser 200 Ser Pro Ser Gln 210 <210> 680 <211> 412 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (172) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (404) <223> Xaa equals any of the naturally occurring L-amino acids <400> 680 Val Ala Val Glu Leu Gly Ser Leu Arg Gly Gly Thr Met Ala Ser Glu 10 Lys Pro Leu Ala Ala Val Thr Cys Thr Ala Pro Val Asn Ile Ala Val 20 Ile Lys Tyr Trp Gly Lys Arg Asp Glu Glu Leu Val Leu Pro Ile Asn

Ser Ser Leu Ser Val Thr Leu His Gln Asp Gln Leu Lys Thr Thr Thr

	50)				55					60				
Thr 65		Val	. Ile	Ser	Lys 70		Phe	Thr	Glu	Asp 75	Arg	Ile	Trp	Leu	Asn 80
Gly	Arg	Glu	Glu	Asp 85		Gly	Gln	Pro	Arg 90	Leu	Gln	Ala	Cys	Leu 95	Arg
Glu	Ile	Arg	Cys 100		Ala	Arg	Lys	Arg 105	Arg	Asn	Ser	Arg	Asp 110	Gly	Asp
Pro	Leu	Pro 115		Ser	Leu	Ser	Cys 120	_	Val	His	Val	Ala 125	Ser	Val	Asn
Asn	Phe 130	Pro	Thr	Ala	Ala	Gly 135		Ala	Ser	Ser	Ala 140	Ala	Gly	Tyr	Ala
Cys 145		Ala	Tyr	Thr	Leu 150	Ala	Arg	Val	туг	Gly 155	Val	Glu	Ser	Asp	Leu 160
Ser	Glu	Val	Ala	Arg 165	Arg	Gly	Ser	Gly	Ser 170	Ala	Xaa	Arg	Ser	Leu 175	Туг
Gly	Gly	Phe	Val 180	Glu	Trp	Gln	Met	Gly 185	Glu	Gln	Ala	Asp	Gly 190	Lys	Asp
Ser	Ile	Ala 195	Arg	Gln	Val	Ala	Pro 200	Glu	Ser	His	Trp	Pro 205	Ģlu	Leu	Arg
Val	Leu 210	Ile	Leu	Val	Val	Ser 215	Ala	Glu	Lys	Lys	Leu 220	Thr	Gly	Ser	Thr
Val 225	Gly	Met	Arg	Ala	Ser 230	Val	Glu	Thr	Ser	Pro 235	Leu	Leu	Arg	Phe	Arg 240
Ala	Glu	Ser	Val	Val 245	Pro	Ala	Arg	Met	Ala 250	Glu	Met	Ala	Arg	Cys 255	Ile
Arg	Glu	Arg	Asp 260	Phe	Pro	Ser	Phe	Ala 265		Leu	Thr	Met	Lys 270	Asp	Ser
Asn	Gln	Phe 275	His	Ala	Thr	Cys	Leu 280	Asp	Thr	Phe	Pro	Pro 285	Ile	Ser	Tyr
Leu	Asn 290	Ala	Ile	Ser	Trp	Arg 295	Ile	Ile	His	Leu	Val 300	His	Arg	Phe	Asn
Ala 305	His	His	Gly	Asp	Thr 310	Lys	Val	Ala	Tyr	Thr 315	Phe	Asp	Ala	Gly	Pro 320
Asn	Ala	Val	Ile	Phe	Thr	Leu	Asp	Asp	Thr	Val	Ala	Glu	Phe	Va 1	Ala

655

325 330 335

Ala Val Trp His Gly Phe Pro Pro Gly Ser Asn Gly Asp Thr Phe Leu $340 \hspace{1cm} 345 \hspace{1cm} 350$

Lys Gly Leu Gln Val Arg Pro Ala Pro Leu Ser Ala Glu Leu Gln Ala 355 360 365

Ala Leu Ala Met Glu Pro Thr Pro Gly Gly Val Lys Tyr Ile Ile Val 370 380

Thr Gln Val Gly Pro Gly Pro Gln Ile Leu Asp Asp Pro Cys Ala His 385 390 395 400

Leu Leu Gly Xaa Asp Gly Leu Pro Lys Pro Ala Ala
405 410

<210> 681

<211> 61

<212> PRT

<213> Homo sapiens

<400> 681

Lys Lys Thr Arg His Leu Ser Lys Ile Leu Cys Gly Lys Met Thr Val $1 \ 5 \ 10 \ . \ 15$

Asn Lys Met Arg Val Ser Gly Pro Phe Val Leu Leu Ser Phe Phe Asp 20 25 30

Tyr Lys Phe Leu Leu Thr His Thr Ile Met Ser Ala Asn Pro Leu Leu 35 40 45

Pro Arg Glu Arg Asn Cys Ala Pro Ser Val Leu Leu Pro 50 60

<210> 682

<211> 243

<212> PRT

<213> Homo sapiens

<400> 682

Ser Ala Pro Pro Pro Pro Arg Arg Lys Thr Ala Pro Pro Ala His Arg

1 5 10 15

Gln Arg Pro Pro Gln Ser Pro Thr Ala Thr Gly Leu Gly Pro Ala 20 25 30

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Ala	Arg	Ser	Cys	Leu	Pro	Gln	Pro	Pro	Ser	Arg	Gly	Pro	Gln	Pro	Pro
		35					40					45			

- Pro Thr Leu Pro His Gly Pro Gly Ala Met Ser Glu Leu Glu Gln Leu 50 55 60
- Arg Gln Glu Ala Glu Gln Leu Arg Asn Gln Ile Arg Asp Ala Arg Lys
 65 70 75 80
- Ala Cys Gly Asp Ser Thr Leu Thr Gln Ile Thr Ala Gly Leu Asp Pro \$85\$ 90 95
- Val Gly Arg Ile Gln Met Arg Thr Arg Arg Thr Leu Arg Gly His Leu 100 105 110
- Ala Lys Ile Tyr Ala Met His Trp Gly Thr Asp Ser Arg Leu Leu Val 115 120 125
- Ser Ala Ser Gln Asp Gly Lys Leu Ile Ile Trp Asp Ser Tyr Thr Thr 130 135 140
- Asn Lys Val His Ala Ile Pro Leu Arg Ser Ser Trp Val Met Thr Cys 145 150 155 160
- Ala Tyr Ala Pro Ser Gly Asn Phe Val Ala Cys Gly Gly Leu Asp Asn 165 170 175
- Ile Cys Ser Ile Tyr Ser Leu Lys Thr Arg Glu Ala Thr Ser Gly Ser 180 185 190
- Ala Gly Ser Cys Leu Ala Thr Leu Gly Thr Cys Arg Val Ala Ala Ser 195 200 205
- Trp Met Thr Thr Lys Ser Ser Pro Ala Leu Gly Ile Pro Pro Val Pro 210 215 220
- Cys Gly Thr Leu Arg Gln Ala Ser Arg Gln Trp Val Leu Leu Asp Thr 225 230 230 235 240

Val Gly Met

<210> 683

<211> 146

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

657

<222> (133) <223> Xaa equals any of the naturally occurring L-amino acids Asp Leu Glu Gly Asp Ala Gly Tyr Thr Gly Gly Leu Arg Gln Gly His Ala Gly Gly Ala Gly Glu Leu Ala Arg Thr Leu Ala Leu Lys Pro Thr 25 Ser Leu Glu Leu Phe Arg Thr Lys Val Asn Ala Leu Thr Tyr Gly Glu 40 Val Leu Arg Leu Arg Gln Thr Glu Arg Leu His Gln Glu Gly Thr Leu Ala Pro Pro Ile Leu Glu Leu Arg Glu Lys Leu Lys Pro Glu Leu Met Gly Leu Ile Arg Gln Gln Arg Leu Leu Arg Leu Cys Glu Gly Thr Leu Phe Arg Lys Ile Ser Ser Arg Arg Gln Asp Lys Leu Trp Phe Cys 105 Cys Leu Ser Pro Asn His Lys Leu Leu Gln Tyr Gly Asp Met Glu Glu 120 Gly Ala Ser Ala Xaa Pro Trp Arg Val Cys Pro Ser Asn Ser Leu Trp 135 Pro Thr 145 <210> 684 <211> 300 <212> PRT <213> Homo sapiens Val Tyr Ser Cys Gly Phe Gln Val Gln Ser Trp Ser Pro Arg Trp Ile 5 10 Trp Val Thr Thr Lys Ser Lys Ile Gly Ala Pro Arg Ser Ser Phe Cys

Trp His Arg Leu Pro Ser Thr Ser Gln Leu His Leu Cys Pro Ala Glu

45

. 40

Gly	Glu 50	Ala	Pro	Ser	Ala	Gly 55	Glu	Ala	Ala	Pro	Arg 60	Ala	Pro	Thr	Gly
Ser 65	Glu	Pro	Lys	Pro	Gly 70	Ala	Leu	Pro	Trp	Gly 75	Pro	Arg	Ala	Pro	Asp 80
Ser	Glu	Gly	Gly	Gly 85	Gly	Ala	Gly	Ala	Ala 90	Asp	Pro	Ala	Ala	Asn 95	Ala
Gly	His	Gly	Ala 100	Ser	Ser	Glu	Ala	Glu 105	Cys	Gly	Cys	Gln	Arg 110	Thr	Leu
Arg		Met 115	Pro	Ser	Thr	Pro	Gly 120	Pro	Gly	Ala	Ala	Ala 125	Val	Arg	Ala
Leu	Gly 130	Gln	Leu	Phe	His	Ile 135	Ala	Cys	Phe	Thr	Cys 140	His	Gln	Cys	Ala
Gln 145	Gln	Leu	Gln	Gly	Gln 150	Gln	Phe	Tyr	Ser	Leu 155	Glu	Gly	Ala	Pro	Туг 160
Cys	Glu	Gly	Cys	Туг 165	Thr	Asp	Thr	Leu	Glu 170	Lys	Cys	Asn	Thr	Cys 175	Gly
Glu	Pro	Ile	Thr 180	Asp	Arg	Met	Leu	Arg 185	Ala	Thr	Gly	Lys	Ala 190	Tyr	His
Pro	His	Cys 195	Phe	Thr	Cys	Val	Val 200	Cys	Ala	Arg	Pro	Leu 205	Glu	Gly	Thr
Ser	Phe 210	Ile	Val	Asp	Gln	Ala 215	Asn	Arg	Pro	His	Cys 220	Val	Pro	Asp	Tyr
His 225	Lys	Gln	Tyr	Ala	Pro 230	Arg	Cys	Ser	Val	Cys 235	Ser	Glu	Pro	Ile	Met 240
Pro	Glu	Pro	Gly	Arg 245	Asp	Glu	Thr	Val	Arg 250	Val	Val	Ala	Leu	Asp 255	Lys
Asn	Phe	His	Met 260	Lys	Cys	Tyr	Lys	Cys 265	Glu	Asp	Cys	Gly	Lys 270	Pro	Leu
Ser	Ile	Glu 275	Ala	Asp	Asp	Asn	Gly 280	Cys	Phe	Pro	Leu	Asp 285	Gly	His	Val
Leu	Cys 290	Arg	Lys	Cys	His	Thr 295	Ala	Arg	Ala	Gln	Thr 300				

659

<211> 130 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <400> 685 Ile Arg His Glu Asp Cys Pro Thr Pro Ser Gln Cys Val Val Ala Arg Thr Leu Gly Lys Gln Gln Thr Val Met Ala Ile Ala Thr Lys Ile Ala Leu Gln Met Asn Cys Lys Met Gly Glu Leu Trp Arg Val Asp Ile 40 Pro Leu Lys Leu Val Met Ile Val Gly Ile Asp Cys Xaa His Asp Met 55 Thr Ala Gly Arg Arg Ser Ile Ala Gly Phe Val Ala Ser Ile Asn Glu Gly Met Thr Arg Trp Phe Ser Arg Cys Ile Phe Gln Asp Arg Gly Gln Glu Leu Val Asp Gly Leu Lys Val Cys Leu Gln Ala Ala Leu Arg Ala 105 Trp Asn Ser Cys Asn Glu Tyr Met Pro Ser Arg Ile Ile Val Tyr Arg 115 120 Val Ala 130 <210> 686 <211> 207 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids

Ile Tyr Gln Val Tyr Asn Ala Leu Gln Glu Lys Val Gln Ala Val Cys

<400> 686

Ala	Asp	Val	Glu 20	Lys	Ser	Glu	Arg	Val 25	Val	Glu	Ser	Cys	Gln 30	Ala	Glu
Val	Asn	Lys 35	Leu	Arg	Arg	Gln	Ile 40	Thr	Gln	Arg	Lys	Asn 45	Glu	Lys	Glu
Gln	Glu 50	Arg	Arg	Leu	Gln	Gln 55	Ala	Val	Leu	Ser	Arg 60	Gln	Met	Pro	Ser
Glu 65	Ser	Leu	Asp	Pro	Ala 70	Phe	Ser	Pro	Arg	Met 75	Pro	Ser	Ser	Gly	Phe 80
Ala	Ala	Glu	Xaa	Arg 85	Ser	Thr	Leu	Gly	Asp 90	Ala	Glu	Ala	Ser	Asp 95	Pro
Pro	Pro	Pro	Tyr 100	Ser	Asp	Phe	His	Pro 105	Asn	Asn	Gln	Glu	Ser 110	Thr	Leu
Ser	His	Ser 115	Arg	Met	Glu	Arg	Ser 120	Val	Phe	Met	Pro	Arg 125	Pro	Gln	Ala
Val	Gly 130	Ser	Ser	Asn	Tyr	Ala 135	Ser	Thr	Ser	Ala	Gly 140	Leu	Lys	Tyr	Pro
Gly 145	Ser	Gly	Ala	Asp	Leu 150	Pro	Pro	Pro	Gln	Arg 155	Ala	Ala	Gly	Asp	Ser 160
Gly	Glu	Asp	Ser	Asp 165	Asp	Ser	Asp	Tyr	Glu 170	Asn	Leu	Ile	Asp	Pro 175	Thr
Glu	Pro	Ser	Asn 180	Ser	Glu	Tyr	Ser	His 185	Ser	Lys	Asp	Ser	Arg 190	Pro	Met
Ala	His	Pro 195	Asp	Glu	Asp	Pro	Arg 200	Asn	Thr	Gln	Thr	Ser 205	Gln	Ile	
<210	> 68	7													
	> 10														
<212	> PR	T													
<213	> Ho	mo s	apie	ns											
<400	> 68	7													
			Glv	Glu	Glu	Glv	Val	Val	Thr	Ara	Trp	Arg	His	Arg	Leu
			_			_				,	-	-		15	

Gly Gln Gly Ala Cys Pro Trp Asp Arg Ser Arg Pro Met Glu Pro Pro

Gly Arg Ser Ser Arg Ser Thr Ala Ser His Thr Leu His Gln Tyr Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Pro Thr Gln Val Leu Asp Ser Met Lys Leu Thr Pro Ser Gly Arg 50 60

Glu Glu Glu Asp Ala His Gln Phe Cys Cys Pro Ala Ser Glu Cys Ser

Ser Pro Ser Ser Arg 100

<210> 688

<211> 62

<212> PRT

<213> Homo sapiens

<400> 688

Glu Arg Asn Ala Asp Pro Pro Asp Val Ser Leu Gly Lys Ala Val Asn
1 5 10 15

Gln Leu Ile Phe Ile Glu Asp Leu Leu Cys Pro Leu His Arg Val Ala 20 25 30

Ser Val Arg Glu Ser Trp Phe Phe Pro Arg Asn Thr Asp Phe Leu Ser 35 40 45

Gly Arg Leu His Val Phe Ile Tyr Phe His His Ser Arg Phe 50 60

<210> 689

<211> 549

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<22	3> >	Kaa e	qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<40	0> 6	89													
Xaa 1	Arç	Trp	Ala	Cys 5	Gly	Xaa	Leu	Leu	Leu 10	Leu	Val	Arg	Gly	Gln 15	Gly
Gln	Asp	Ser	Ala 20		Pro	Ile	Arg	Thr 25	Thr	His	Thr	Gly	Gln 30	Val	Leu
Gly	Ser	Leu 35	Val	His	Val	Lys	Gly 40	Ala	Asn	Ala	Gly	Val 45	Gln	Thr	Phe
Leu	Gly 50		Pro	Phe	Ala	Lys 55	Pro	Pro	Leu	Gly	Pro 60	Leu	Arg	Phe	Ala
Pro 65	Pro	Glu	Pro	Pro	Glu 70	Ser	Trp	Ser	Gly	Val 75	Arg	Asp	Gly	Thr	Thr 80
His	Pro	Ala	Met	Cys 85	Leu	Gln	Asp	Leu	Thr 90	Ala	Val	Glu	Ser	Glu 95	Phe
Leu	Ser	Gln	Phe 100	Asn	Met	Thr	Phe	Pro 105	Ser	Asp	Ser	Met	Ser 110	Glu	Asp
Cys	Leu	Tyr 115	Leu	Ser	Ile	туг	Thr 120	Pro	Ala	His	Ser	His 125	Glu	Gly	Ser
Asn	Leu 130		Val	Met	Val	Trp 135	Ile	His	Gly	Gly	Ala 140	Leu	Val	Phe	Gly
Met 145	Ala	Ser	Leu	Tyr	Asp 150	Gly	Ser	Met	Leu	Ala 155	Ala	Leu	Glu	Asn	Val 160
Val	Val	Val	Ile	Ile 165	Gln	Tyr	Arg	Leu	Gly 170	Val	Leu	Gly	Phe	Phe 175	Ser
Thr	Gly	Asp	Lys 180	His	Ala	Thr	Gly	Asn 185	Trp	Gly	Tyr	Leu	Asp 190	Gln	Val
Ala	Ala	Leu 195	Arg	Trp	Val	Gln	Gln 200	Asn	Ile	Ala	His	Phe 205	Gly	Gly	Asn
Pro	Asp 210	Arg	Val	Thr	Ile	Phe 215	Gly	Glu	Ser	Ala	Gly 220	Gly	Thr	Ser	Val
Ser 225	Ser	Leu	Val	Val	Ser 230	Pro	Ile	Ser	Gln	Gly 235	Leu	Phe	His	Gly	Ala 240
Ile	Met	Glu	Ser	Gly 245	Val	Ala	Leu	Leu	Pro 250	Gly	Leu	Ile	Ala	Ser 255	Ser

663

Ala Asp Val Ile Ser Thr Val Val Ala Asn Leu Ser Ala Cys Asp Gln 265 Val Asp Ser Glu Ala Leu Val Gly Cys Leu Arg Gly Lys Ser Lys Glu 275 280 Glu Ile Leu Ala Ile Asn Lys Pro Phe Lys Met Ile Pro Gly Val Val 295 Asp Gly Val Phe Leu Pro Arg His Pro Gln Glu Leu Leu Ala Ser Ala Asp Phe Gln Pro Val Pro Ser Ile Val Gly Val Asn Asn Asn Glu Phe Gly Trp Leu Ile Pro Lys Val Met Arg Ile Tyr Asp Thr Gln Lys Glu 345 Met Asp Arg Glu Ala Ser Gln Ala Ala Leu Gln Lys Met Leu Thr Leu 355 360 Leu Met Leu Pro Pro Thr Phe Gly Asp Leu Leu Arg Glu Glu Tyr Ile Gly Asp Asn Gly Asp Pro Gln Thr Leu Gln Ala Gln Phe Gln Glu Met 385 390 395 Met Ala Asp Ser Met Phe Val Ile Pro Ala Leu Gln Val Ala His Phe 405 Gln Cys Ser Arg Ala Pro Val Tyr Phe Tyr Glu Phe Gln His Gln Pro 425 Ser Trp Leu Lys Asn Ile Arg Pro Pro His Met Lys Ala Asp His Gly 435 440 Asp Glu Leu Pro Phe Val Phe Arg Ser Phe Phe Gly Gly Asn Tyr Ile Lys Phe Thr Glu Glu Glu Glu Leu Ser Arg Lys Met Met Lys Tyr 470 475 Trp Ala Asn Phe Ala Arg Asn Gly Asn Pro Asn Gly Glu Gly Leu Pro His Trp Pro Leu Phe Asp Gln Glu Glu Gln Tyr Leu Gln Leu Asn Leu 505

Gln Pro Ala Val Gly Arg Ala Leu Lys Ala His Arg Leu Gln Phe Trp

664

Lys Lys Ala Leu Pro Gln Lys Ile Gln Glu Leu Glu Glu Pro Glu Glu 530 535 540

Arg His Thr Glu Leu 545

<210> 690

<211> 155

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 690

Ser His Arg Val Thr His Cys Pro Tyr Ala Val Ala Leu Pro Glu Val 1 5 10 15

Ala Pro Ala Gln Pro Leu Thr Glu Ala Leu Arg Ala Leu Cys His Val 20 25 30

Gly Leu Phe Xaa Phe Ala Phe Cys Ala Leu Phe Asp Cys Xaa Arg Pro 35 40 45

Val Xaa Gln Lys Ser Cys Asp Leu Leu Leu Phe Leu Arg Asp Lys Ile 50 55 60

Ala Ser Tyr Ser Ser Leu Arg Glu Ala Arg Gly Ser Pro Asn Thr Ala 65 70 75 80

Ser Ala Glu Ala Xaa Leu Pro Arg Trp Arg Ala Gly Glu Gln Ala Gln 85 90 95

665

Pro Pro Gly Asp Gln Glu Pro Glu Ala Val Leu Ala Met Leu Arg Ser 100 105 110

Leu Asp Leu Glu Gly Leu Arg Ser Thr Leu Ala Glu Ser Ser Asp His 115 120 125

Val Glu Lys Ser Pro Gln Ser Leu Leu Gln Asp Met Leu Ala Thr Gly 130 135 140

Gly Phe Leu Gln Gly Asp Glu Ala Asp Cys Tyr 145 150 155

<210> 691

<211> 149

<212> PRT

<213> Homo sapiens

<400> 691

Met Cys Leu Glu Arg Pro Leu Arg Glu Gly Pro Arg Val Met Glu Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Glu Ala Trp Pro Gly Ser Leu Glu Gly Arg Gly Gly Gly Trp Arg His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Leu Asp Cys Pro Leu Leu Ser His Thr Trp Gly Val Val Thr Pro Phe 35 40 45

Thr Pro Ala Arg Leu Pro Ser Ala Phe His Glu Leu His Leu Leu Pro 50 60

Thr Ser Leu Trp Arg Gly Trp Gly Pro Leu Ala Ser Thr Arg Gly Pro 65 70 75 80

Ser Ala Ser Pro Lys Pro Glu Pro Ser Ala Pro Gly Glu Asn Lys Trp
85 90 95

Leu Ser Phe Asp Thr Trp Gly Arg Arg Glu Ala Ala Gly Trp Arg Gln
100 105 110

Ser Gln Gly Arg Asp Thr Thr Glu Gly Asp Pro Asp Ile Pro Arg Lys 115 120 125

Phe Pro Ala Glu Gln Thr Ala Phe Gln Pro Glu Ala Cys Leu Asn Cys 130 135 140

Val Met Cys Asn Asn

<21 <21	1> 2 2> P 3> H	18 R T	sapi	ens											
<22	1> s 2> (160)	qual	s an	y of	the	nati	ural	ly o	ccur	ring	L-aı	mino	acio	ds
	0> 6 Gly		Lys	Leu 5	Trp	Asp	Val	Pro	Val 10	Met	Leu	Asp	His	Lys 15	Ası
Leu	Glu	Ala	Glu 20	Ile	His	Pro	Leu	Lys 25	Asn	Glu	Glu	Arg	Lys 30	Ser	Gli
Glu	Asn	Leu 35	Gly	Asn	Pro	Ser	Lys 40	Asn	Glu	Asp	Asn	Val 45	Lys	Ser	Ala
Pro	Pro 50	Gln	Ser	Arg	Leu	Ser 55	Arg	Cys	Arg	Ala	Ala 60	Ala	Phe	Phe	Lei
Ser 65	Leu	Phe	Leu	Cys	Leu 70	Phe	Val	Val	Phe	Val 75	Val	Ser	Phe	Val	11e
Pro	Cys	Pro	Asp	Arg 85	Pro	Ala	Ser	Gln	Arg 90	Met	Trp	Arg	Ile	Asp 95	Ту
Ser	Ala	Ala	Val 100	Ile	туг	Asp	Phe	Leu 105	Ala	Val	Asp	Asp	Ile 110	Asn	Gly
Asp	Arg	Ile 115	Gln	Asp	Val	Leu	Phe 120	Leu	туг	Lys	Asn	Thr 125	Asn	Ser	Se
Asn	Asn 130	Phe	Ser	Arg	Ser	Cys 135	Val	Asp	Glu	Gly	Phe 140	Ser	Ser	Pro	Cys
Thr 145	Phe	Ala	Ala	Ala	Val 150	Ser	Gly	Ala	Asn	Ala 155	Ala	Arg	Ser	Gly	Xaa 160
Asp	Leu	Trp	Pro	Lys 165	Thr	Trp	Pro	Ser	Trp 170	Ser	Val	Leu	Cys	Pro 175	Ser
Gln	Glu	Ala	Val 180	Arg	His	Leu	Leu	Pro 185	Ala	Ser	Trp	Trp	Ala 190	Asp	Pro
Val	Leu	Ser 195	Leu	Gln	Ser	Thr	Cys 200	Ser	Gln	Gly	Lys	Pro 205	Trp	Lys	Pro

667

Gln Pro Ala Val Gln Gly Glu Trp Ser Ile

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210
<210> 693
<211> 68
<212> PRT
<213> Homo sapiens
<400> 693
Ser Cys Asn Ser Ser Asn Asn Ile Leu Gln Leu Pro Tyr Arg Asn Arg
Ser Gly Arg Ala Lys Ser Asp Leu Gly Lys Val Ile Arg Tyr Arg Leu
                                 25
Ser Ile Pro Phe Pro Lys Met Leu Gly Thr Arg Ser Ile Ser Asp Phe
         35
                             40
Ile Ile Phe Phe Lys Val Trp Asn Ile Cys Ile Ile Leu Thr Ser Trp
                         55
                                              60
Ala Ser Gln Ile
 65
<210> 694
<211> 234
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (219)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 694
Cys Ala Xaa Xaa Leu Arg Gly Phe Asp Gln Gln Met Ser Ser Met Val
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1				5					10					15	
Ile	Glu	His	Met 20	Ala	Ser	His	Gly	Thr 25	Arg	Phe	Leu	Arg	Gly 30	Суѕ	Ala
Pro	Ser	Arg 35	Val	Arg	Arg	Leu	Pro 40	Asp	Gly	Gln	Leu	Gln 45	Val	Thr	Trp
Glu	Asp 50	Ser	Thr	Thr	Gly	Lys 55	Glu	Asp	Thr	Gly	Thr 60	Phe	Asp	Thr	Val
Leu 65	Trp	Ala	Ile	Gly	Arg 70	Val	Pro	Asp	Thr	Arg 75	Ser	Leu	Asn	Leu	Glu 80
Lys	Ala	Gly	Val	Asp 85	Thr	Ser	Pro	Asp	Thr 90	Gln	Lys	Ile	Leu	Val 95	Asp
Ser	Arg	Glu	Ala 100	Thr	Ser	Val	Pro	His 105	Ile	Tyr	Ala	Ile	Gly 110	Asp	Val
Val	Glu	Gly 115	Arg	Pro	Glu	Leu	Thr 120	Pro	Thr	Ala	Ile	Met 125	Ala	Gly	Arg
Leu	Leu 130	Val	Gln	Arg	Leu	Phe 135	Gly	Gly	Ser	Ser	Asp 140	Leu	Met	Asp	Tyr
Asp 145	Asn	Val	Pro	Thr	Thr 150	Val	Phe	Thr	Pro	Leu 155	Glu	Tyr	Gly	Cys	Val 160
Gly	Leu	Ser	Glu	Glu 165	Glu	Ala	Val	Ala	Arg 170	His	Gly	Gln	Glu	His 175	Val
Glu	Val	Tyr	His 180	Ala	His	Tyr	Lys	Pro 185	Leu	Glu	Phe	Thr	Val 190	Ala	Gly
Arg	Asp	Ala 195	Ser	Gln	Cys	Tyr	Val 200	Lys	Met	Val	Cys	Leu 205	Arg	Glu	Pro
Pro	Gln 210	Leu	Val	Leu	Gly	Leu 215	His	Phe	Leu	Xaa	Pro 220	Thr	Gln	Ala	Asn
Tyr 225	Ser	Arg	Ile	Cys	Ser 230	Gly	Asp	Lys	Cys						

<210> 695

<211> 460

<212> PRT

<213> Homo sapiens

<400> 695

Pro 1	Cys	Pro	Pro	Arg 5	Pro	Gln	Glu	Leu	Pro 10	Gly	Arg	Ser	Pro	Ser 15	Ser
Trp	Ser	Ala	Leu 20	Gly	Trp	Pro	Ala	Ala 25	Leu	Gly	Gly	Gly	val 30	Val	Ala
Val	Ala	Val 35	Cys	Glu	Pro	Val	Ala 40	Arg	Leu	Leu	Trp	Ala 45	Gly	Thr	Let
Lys	Ile 50	Ala	Ala	Met	Ala	Glu 55	Asn	Gly	Asp	Asn	Glu 60	Lys	Met	Ala	Ala
Leu 65	Glu	Ala	Lys	Ile	Cys 70	His	Gln	Ile	Glu	Tyr 75	туг	Phe	Gly	Asp	Phe 80
Asn	Leu	Pro	Arg	Asp 85	Lys	Phe	Leu	Lys	Glu 90	Gln	Ile	Lys	Leu	Asp 95	Glu
Gly	Trp	Val	Pro 100	Leu	Glu	Ile	Met	Ile 105	Lys	Phe	Asn	Arg	Leu 110	Asn	Arg
Leu	Thr	Thr 115	Asp	Phe	Asn	Val	11e 120	Val	Glu	Ala	Leu	Ser 125	Lys	Ser	Lys
Ala	Glu 130	Leu	Met	Glu	Ile	Ser 135	Glu	Asp	Lys	Thr	Lys 140	Ile	Arg	Arg	Ser
Pro 145	Ser	Lys	Pro	Leu	Pro 150	Glu	Val	Thr	Asp	Glu 155	Tyr	Lys	Asn	Asp	Val
Lys	Asn	Arg	Ser	Val 165	Tyr	Ile	Lys	Gly	Phe 170	Pro	Thr	Asp	Ala	Thr 175	Leu
Asp	Asp	Ile	Lys 180	Glu	Trp	Leu	Glu	Asp 185	Lys	Gly	Gln	Val	Leu 190	Asn	Ile
		195	Arg				200					205			
Val	Phe 210	Asp	Ser	Ile	Glu	Ser 215	Ala	Lys	Lys	Phe	Val 220	Glu	Thr	Pro	Gly
Gln 225	Lys	Tyr	Lys	Glu	Thr 230	Asp	Leu	Leu	Ile	Leu 235	Phe	Lys	Asp	Asp	Tyr 240
			Lys	245				_	250					255	
Leu	Arg	Ala	Lys 260	Gln	Glu	Gln	Glu	Ala 265	Lys	Gln	Lys	Leu	Glu 270	Glu	Asp

Ala	Glu	Met 275	Lys	Ser	Leu	Glu	Glu 280	Lys	Ile	Gly	Cys	Leu 285	Leu	Lys	Phe
Ser	Gly 290	Asp	Leu	Asp	Asp	Gln 295	Thr	Cys	Arg	Glu	Asp 300	Leu	His	Ile	Leu
Phe 305	Ser	Asn	His	Gly	Glu 310	Ile	Lys	Trp	Ile	Asp 315	Phe	Val	Arg	Gly	Ala 320
Lys	Glu	Gly	Ile	11e 325	Leu	Phe	Lys	Glu	Lys 330	Ala	Lys	Glu	Ala	Leu 335	_
Lys	Ala	Lys	Asp 340	Ala	Asn	Asn	Gly	Asn 345	Leu	Gln	Leu	Arg	Asn 350	Lys	Glu
Val	Thr	Trp 355	Glu	Val	Leu	Glu	Gly 360	Glu	Val	Glu	Lys	Glu 365	Ala	Leu	Lys
Lys	Ile 370	Ile	Glu	Asp	Gln	Gln 375	Glu	Ser	Leu	Asn	Lys 380	Trp	Lys	Ser	Lys
Gly 385	Arg	Arg	Phe	Lys	Gly 390	Lys	Gly	Lys	Gly	Asn 395	Lys	Ala	Ala	Gln	Pro 400
Gly	Ser	Gly	Lys	Gly 405	Lys	Val	Gln	Phe	Gln 410	Gly	Lys	Lys	Thr	Lys 415	Phe
Ala	Ser	Asp	Asp 420	Glu	His	Asp	Glu	His 425	Asp	Glu	Asn	Gly	Ala 430	Thr	Gly
Pro	Val	Lys 435	Arg	Ala	Arg	Glu	Glu 440	Thr	Asp	Lys	Glu	Glu 445	Pro	Ala	Ser
Lys	Gln	Gln	Lys	Thr	Glu	Asn	Gly	Ala	Gly	Asp	Gln				

<210> 696

<211> 80

<212> PRT

<213> Homo sapiens

450 455

<400> 696

Gly Glu Glu Gly Val Gly Ser Pro Ser Gly Ile Leu Ala Thr Pro Leu
1 5 10 15

Arg Ser Ala Arg Gly Thr Thr His Thr His Thr His Thr His Thr His 20 25 30

Thr His Ser His Thr His Ala His Phe Pro Ser Phe Pro Asp Pro Leu 40

Phe Gln Ser Ser Pro Phe Ser Ser Gly Phe Ile Asp Glu Tyr Lys Tyr

Pro His Leu Trp Pro Val Met Ser Val Thr Cys Cys Arg Phe Cys Val 70 75

<210> 697

<211> 257

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

Trp Pro Arg Arg Pro Gly Pro His Leu Gly Val Leu Glu Phe Pro Gly

Ala Gly Cys Gly Ala Ser Ala Ala Gly Trp Pro Ser Ala Xaa Met Leu

Pro Gly Arg Gly Pro Arg Pro Phe Arg Ala Arg Leu Val Gly Arg Glu 35 40

Leu Val Ser Met Leu Ala Arg Glu Leu Pro Ala Ala Val Ala Pro Ala 55

Gly Pro Ala Ser Leu Ala Arg Trp Thr Leu Gly Phe Cys Asp Glu Arg 65 70 75

Leu Val Pro Phe Asp His Ala Glu Ser Thr Tyr Gly Leu Tyr Arg Thr 85

His Leu Leu Ser Arg Leu Pro Ile Pro Glu Ser Gln Val Ile Thr Ile 105

Asn Pro Glu Leu Pro Val Glu Glu Ala Ala Glu Asp Tyr Ala Lys Lys 115

Leu Arg Gln Ala Phe Gln Gly Asp Ser Ile Pro Val Phe Asp Leu Leu 130 140 135

672

Ile Leu Gly Val Gly Pro Asp Gly His Thr Cys Ser Leu Phe Pro Asp 145 150 His Pro Leu Leu Gln Glu Arg Glu Lys Ile Val Ala Pro Ile Ser Asp 170 Ser Pro Lys Pro Pro Pro Gln Arg Val Thr Leu Thr Leu Pro Val Leu 180 185 Asn Ala Ala Arg Thr Val Ile Phe Val Ala Thr Gly Glu Gly Lys Ala Ala Val Leu Lys Arg Ile Leu Glu Asp Gln Glu Glu Asn Pro Leu Pro 215 Ala Ala Leu Val Gln Pro His Thr Gly Lys Leu Cys Trp Phe Leu Asp 225 Glu Ala Ala Arg Leu Leu Thr Val Pro Phe Glu Lys His Ser Thr 250 Leu

<210> 698

<211> 68

<212> PRT

<213> Homo sapiens

<400> 698

Gln Tyr Lys Thr Pro Ala Val Asp Thr Thr Met Met Thr Phe His Glu
1 5 10

Leu Val Phe Leu Val Leu Thr Ala Lys Phe Val Leu Phe Thr Gly Gln
20 25 30

Ile Ser Asn Lys Val Leu Gly Leu Lys Ile His Gly Trp Thr Glu Val 35 40 .

Pro Tyr Pro Leu Thr Met Glu Ala Gly Ala Thr Phe Trp Gly Tyr Leu 50 55 60

Phe Leu Asn Phe

673

<211> 360

<212> PRT

<213> Homo sapiens

<400> 699

Pro Cys Ser Ala Thr Thr Ala Trp Val Lys Ser Ser Ile Lys Thr His
1 10 15

Leu Cys Ala Ser Leu Arg His Ile Arg Phe Leu Leu Ser Val Cys Leu 20 25 30

Leu Cys Leu Val Ala Gly Thr Ala Val Ala Val Lys Met Ala Ser Thr 35 40 45

Ser Arg Leu Asp Ala Leu Pro Arg Val Thr Cys Pro Asn His Pro Asp 50 55 60

Ala Ile Leu Val Glu Asp Tyr Arg Ala Gly Asp Met Ile Cys Pro Glu 65 70 75 80

Cys Gly Leu Val Val Gly Asp Arg Val Ile Asp Val Gly Ser Glu Trp 85 90 95

Arg Thr Phe Ser Asn Asp Lys Ala Thr Lys Asp Pro Ser Arg Val Gly 100 105 110

Asp Ser Gln Asn Pro Leu Leu Ser Asp Gly Asp Leu Ser Thr Met Ile 115 120 125

Gly Lys Gly Thr Gly Ala Ala Ser Phe Asp Glu Phe Gly Asn Ser Lys 130 135 140

Tyr Gln Asn Arg Arg Thr Met Ser Ser Ser Asp Arg Ala Met Met Asn 145 150 155 160

Ala Phe Lys Glu Ile Thr Thr Met Ala Asp Arg Ile Asn Leu Pro Arg 165 170 175

Asn Ile Val Asp Arg Thr Asn Asn Leu Phe Lys Gln Val Tyr Glu Gln 180 185 190

Lys Ser Leu Lys Gly Arg Ala Asn Asp Ala Ile Ala Ser Ala Cys Leu 195 200 205

Tyr Ile Ala Cys Arg Gln Glu Gly Val Pro Arg Thr Phe Lys Glu Ile 210 215 220

Cys Ala Val Ser Arg Ile Ser Lys Lys Glu Ile Gly Arg Cys Phe Lys 225 230 235 240

Leu Ile Leu Lys Ala Leu Glu Thr Ser Val Asp Leu Ile Thr Thr Gly

250

674

245

255 Asp Phe Met Ser Arg Phe Cys Ser Asn Leu Cys Leu Pro Lys Gln Val 265 Gln Met Ala Ala Thr His Ile Ala Arg Lys Ala Val Glu Leu Asp Leu 275 280 Val Pro Gly Arg Ser Pro Ile Ser Val Ala Ala Ala Ala Ile Tyr Met 295 Ala Ser Gln Ala Ser Ala Glu Lys Arg Thr Gln Lys Glu Ile Gly Asp 315 Ile Ala Gly Val Ala Asp Val Thr Ile Arg Gln Ser Tyr Arg Leu Ile 325 330 Tyr Pro Arg Ala Pro Asp Leu Phe Pro Thr Asp Phe Lys Phe Asp Thr 340 345 Pro Val Asp Lys Leu Pro Gln Leu 355 <210> 700 <211> 364 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (353) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (360) <223> Xaa equals any of the naturally occurring L-amino acids <400> 700

1	ser	пр	Leu	5		Arg	ser	ser	10	ser	тгр	хаа	Ala	ser 15	Pro
Arg	Gly	Pro	Gln 20	Pro	Pro	Arg	Ile	Arg 25	Ala	Arg	Ser	Ala	Xaa 30	Pro	Met
Glu	Gly	Ala 35	Arg	Val	Phe	Gly	Ala 40	Leu	Gly	Pro	Ile	Gly 45	Pro	Ser	Ser
Pro	Gly 50	Leu	Thr	Leu	Gly	Gly 55	Leu	Ala	Val	Ser	Glu 60	His	Arg	Leu	Ser
Asn 65	Lys	Leu	Leu	Ala	Trp 70	Ser	Gly	Val	Leu	Glu 75	Trp	Gln	Glu	Lys	Arg
				85				Ū	90		Arg			95	_
Gln	Ala	Tyr	Val 100	Asn	Gln	Gly	Glu	Asn 105	Leu	Glu	Thr	Asp	Gln 110	Trp	Pro
		115					120				Leu	125			
	130					135					Phe 140				
145					150					155	Ile				160
				165					170		Pro	_		175	
			180					185			Ile		190		
		195					200				Ile	205			
	210					215					Val 220				
225					230					235	Ser	-			240
				245					250		Ser			255	
Pro	Ser	His	Val	Tyr	Val	Asn	Gln	Gly	Glu	Ile	Leu	Arg	Thr	Glu	Gln

Trp Pro Arg Lys Leu Tyr Met Gln Leu Ile Pro Gln Gln Leu Leu Thr 280 Thr Leu Val Pro Leu Phe Arg Asn Ser Arg Leu Val Gln Phe His Phe 295 Thr Lys Asp Leu Glu Thr Leu Lys Ser Leu Cys Arg Ile Met Asp Asn 315 Gly Phe Ala Gly Cys Val His Phe Ser Tyr Lys Ala Ser Cys Glu Ile 325 Arg Val Leu Met Leu Leu Tyr Ser Ser Glu Lys Lys Ile Phe Ile Gly 345 Xaa Ile Pro His Asp Gln Gly Xaa Phe Val Gln Arg 360 <210> 701 <211> 156 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (33) <223> Xaa equals any of the naturally occurring L-amino acids Gly Thr Arg Gly Ile Leu His Val Ala Val Pro Ala Arg Gly Thr His Ala Gln Cys Cys Arg Asn Trp Thr Val Pro Asp Ser Gly Gln Gly Lys 25 Xaa Val Met Leu Glu Gly Gln Gly Arg Leu Glu Arg Val His Ile Pro 40 Leu Ser Ala Pro Ala Ser Ala Thr Val Gln Arg Pro Thr Gly Pro Gln Pro Val Ala Cys Pro His Cys Pro Val Pro Thr Ser Asn Ser Pro Gln Pro Leu Val Ala Ser Val Pro Cys Pro Leu Gly Phe Ser Ser Gln Pro

Ser Gly Leu Gly Leu Cys Arg Lys Val Met Pro Thr Gly Thr Leu Leu

105

677

Thr Pro Gly Ser Phe Met Asp Val Val Ser Glu Leu Arg Thr Arg Gly
115 120 125

Cys Gln Met Phe Leu Ala Pro His Val Ser Phe Arg Thr Glu Gln Lys 130 135 140

<210> 702

<211> 150

<212> PRT

<213> Homo sapiens

<400> 702

Ala Gly His Gly Leu Gly Val Arg Ala Gly Leu Lys Glu Phe Ala Thr
1 5 10 15

Asn Leu Thr Glu Ser Gly Val His Gly Ala Leu Leu Ala Leu Asp Glu 20 25 30

Thr Phe Asp Tyr Ser Asp Leu Ala Leu Leu Leu Gln Ile Pro Thr Gln 35 40 45

Asn Ala Gln Ala Arg Gln Leu Leu Glu Lys Glu Phe Ser Asn Leu Ile
50 55 60

Ser Leu Gly Thr Asp Arg Arg Leu Asp Glu Asp Ser Ala Lys Ser Phe 65 70 75 80

Ser Arg Ser Pro Ser Trp Arg Lys Met Phe Arg Glu Lys Asp Leu Arg 85 90 95

Gly Val Thr Pro Asp Ser Ala Glu Met Leu Pro Pro Asn Phe Arg Ser 100 105 110

Ala Ala Gly Ala Leu Gly Ser Pro Gly Leu Pro Leu Arg Lys Leu 115 120 125

Gln Pro Glu Gly Gln Thr Ser Gly Ser Ser Arg Ala Asp Gly Val Ser 130 135 140

Val Arg Thr Tyr Ser Cys 145 150

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<400> 703
Cys Val Cys Val Glu Gly Val Glu Gly Pro Arg Cys Asp Lys Cys Thr
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1				5					10	1				15	
Arg	Gly	Tyr	Ser 20		Val	Phe	Pro	Asp 25	_	Thr	Pro	Cys	His 30		Cys
Phe	Ala	Leu 35	Trp	Asp	Val	Ile	Ile 40	Ala	Glu	Leu	Thr	Asn 45	Arg	Thr	His
Arg	Phe 50		Glu	Lys	Ala	Lys 55		Leu	Lys	Ile	Ser 60	Gly	Val	Ile	Gly
Pro 65	Tyr	Arg	Glu	Thr	Val 70		Ser	Val	Glu	Arg 75		Val	Ser	Glu	Ile 80
Lys	Asp	Ile	Leu	Ala 85	Gln	Ser	Pro	Ala	Ala 90	Glu	Pro	Leu	Lys	Asn 95	Ile
Gly	Asn	Leu	Phe 100	Glu	Glu	Ala	Glu	Lys 105	Leu	Ile	Lys	Asp	Val 110	Thr	Glu
Met	Met	Ala 115	Gln	Val	Glu	Val	Lys 120	Leu	Ser	Asp	Thr	Thr 125	Ser	Gln	Ser
Asn	Ser 130	Thr	Ala	Lys	Glu	Leu 135	Asp	Ser	Leu	Gln	Thr 140	Glu	Ala	Glu	Ser
Leu 145	Asp	Asn	Thr	Val	Lys 150	Glu	Leu	Ala	Glu	Gln 155	Leu	Glu	Phe	Ile	Lys 160
Asn	Ser	Asp	Ile	Arg 165	Gly	Ala	Leu	Asp	Ser 170	Ile	Thr	Lys	Tyr	Phe 175	Gln
Met	Ser	Leu	Glu 180	Ala _.	Glu	Glu	Arg	Val 185	Asn	Ala	Ser	Thr	Thr 190	Glu	Pro
		195	Val				200					205			
Val	Met 210	Met	Glu	Arg	Glu	Ser 215	Gln	Phe	Lys	Glu	Lys 220	Gln	Glu	Glu	Gln
Ala 225	Arg	Leu	Leu	Asp	Glu 230	Leu	Ala	Gly	Lys	Leu 235	Gln	Ser	Leu	Asp	Leu 240
			Ala	245					250					255	
Kaa	Glu	Xaa	Glu 260	Cys	Gly	Gly	Pro	Asn 265	Cys	Arg	Thr	Asp	Glu 270	Gly	Glu
Arg	Lys	Cys	Gly	Gly	Pro	Gly	Cys	Gly	Glv	Leu	Val	Thr	Val	Ala	His

		275					280					285			
Asn	Ala 290	Trp	Gln	Lys	Ala	Met 295	Asp	Leu	Asp	Gln	Asp 300	Val	Leu	Ser	Ala
Leu 305	Ala	Glu	Val	Glu	Gln 310	Leu	Ser	Lys	Met	Val 315	Ser	Glu	Ala	Lys	Leu 320
Arg	Ala	Asp	Glu	Ala 325	Lys	Gln	Ser	Ala	Glu 330	Asp	Ile	Leu	Leu	Lys 335	Thr
Asn	Ala	Thr	Lys 340	Glu	Lys	Met	Asp	Lys 345	Ser	Asn	Glu	Glu	Leu 350	Arg	Asn
Leu	Ile	Lys 355	Gln	Ile	Arg	Asn	Phe 360	Leu	.Thr	Gln	Asp	Ser 365	Ala	Asp	Leu
Asp	Ser 370	Ile	Glu	Ala	Val	Ala 375	Asn	Glu	Val	Leu	Lys 380	Met	Glu	Met	Pro
Ser 385	Thr	Pro	Gln	Gln	Leu 390	Gln	Asn	Leu	Thr	Glu 395	Asp	Ile	Arg	Glu	Arg 400
Val	Glu	Ser	Leu	Ser 405	Gln	Val	Glu	Val	Ile 410	Leu	Gln	His	Ser	Ala 415	Ala
Asp	Ile	Ala	Arg 420	Ala	Glu	Met	Leu	Leu 425	Glu	Glu	Ala	Lys	Arg 430	Ala	Ser
Lys	Ser	Ala 435	Thr	Asp	Val	Lys	Val 440	Thr	Ala	Asp	Met	Val 445	Lys	Glu	Ala
Leu	Glu 450	Glu	Ala	Glu	Lys	Ala 455	Gln	Val	Ala	Ala	Glu 460	Lys	Ala	Ile	Lys
Gln 465	Ala	Asp	Glu	Asp	Ile 470	Xaa	Arg	Asn	Pro	Glu 475	Pro	Xaa	Asn	Phe	Xaa 480
Leu	Glu	Phe	Xaa	Lys 485	Gln	Gln	Leu	Ser	Gly 490	Gly	Asn	Leu	Val	Gln 495	Arg
Val	Pro	Arg	Ala 500	Ser	Ser	Glu	Phe	Arg 505	Glu	Asp	Val	Gly	Arg 510	Xaa	Leu
Ser	Gly	Lys 515	Leu	Ala	Gln	Xaa		_	-	_	-	Ile 525	Phe	Trp	

<210> 704 <211> 62

681

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<212> PRT
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Val Tyr Gln Arg Lys Ser Thr Val Val Leu Gly Gly Phe Leu Leu Trp
Asp Ile Asp Phe Leu Phe Phe Phe Arg Asn Ile Val Cys Cys Asn Leu
                                 25
Asn Lys Asn Tyr Asp Ile Leu Arg Tyr Phe Ile Asp Lys Pro Asn Lys
Asn Ile Cys Phe Tyr Phe Lys Val Asn Val Phe Leu Phe Ser
     50 55
<210> 705
<211> 44
<212> PRT
<213> Homo sapiens
<400> 705
Thr Glu Asp Leu Phe Gly Phe Lys His Leu Leu Arg Gln Tyr Leu Leu
                 5
Gly Lys Pro Asn Ile Ala Asn Gly Gln Phe Asp Phe Asn Phe Ser Lys
                                25
Asp Thr Leu Leu Ser Arg Arg Leu Lys Cys Leu His
<210> 706
<211> 193
<212> PRT
<213> Homo sapiens
<220>
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Xaa Gly Arg Ala Trp Val Met Ala Ala Pro Gly Ala Leu Leu Val Met

Gly Val Ser Gly Ser Gly Lys Ser Thr Val Gly Ala Leu Leu Ala Ser

25

5

Glu Leu Gly Trp Lys Phe Tyr Asp Ala Asp Asp Tyr His Pro Glu Glu 40 Asn Arg Arg Lys Met Gly Lys Gly Ile Pro Leu Asn Asp Gln Asp Arg Ile Pro Trp Leu Cys Asn Leu His Asp Ile Leu Leu Arg Asp Val Ala 75 Ser Gly Gln Arg Val Val Leu Ala Cys Ser Ala Leu Lys Lys Thr Tyr Arg Asp Ile Leu Thr Gln Gly Lys Asp Gly Val Ala Leu Lys Cys Glu 105 Glu Ser Gly Lys Glu Ala Lys Gln Ala Glu Met Gln Leu Leu Val Val 120 125 His Leu Ser Gly Ser Phe Glu Val Ile Ser Gly Arg Leu Leu Lys Arg 135 Glu Gly His Phe Met Pro Pro Glu Leu Leu Gln Ser Gln Phe Glu Thr 145 150 Leu Glu Pro Pro Ala Ala Pro Glu Asn Phe Ile Gln Ile Ser Val Asp 170 Lys Asn Val Ser Glu Ile Ile Ala Thr Ile Met Glu Thr Leu Lys Met

185

Lys

<210> 707 <211> 121 <212> PRT

<213> Homo sapiens

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<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

683

<400> 707

Gly Ile Arg Gly Gln Thr Leu Trp Leu Gly Pro Leu Gly Ala Thr Leu
1 5 10 15

Trp Pro Leu Gly Ala Leu Glu Thr Ser His Val Leu Trp Ala Leu Trp 20 25 30

Arg Ala Leu Ala Leu His Gly Gly Ala Gly Arg His Cys Leu Pro Cys 35 40 45

Pro Leu Pro Ala Ala Pro Ala Leu Val Cys Arg Leu Gly Pro Gly Cys 50 55 60

Leu Leu Cly Val Trp Pro Arg Ala Pro Val Lys Pro Trp Arg His 65 70 75 80

Cys Val Cys Val Met Gly Ser Glu Gly Leu Val Gly Ala Val His Trp 85 90 95

Ser Ser Ser Leu Pro Xaa Xaa Ala Ile Ser Met Ala Pro Phe Ala Ala 100 105 110

Glu Asp Thr His Cys Gly Ser Val Gly 115 120

<210> 708

<211> 112

<212> PRT

<213> Homo sapiens

<400> 708

As Ser Phe Cys Tyr Phe His Ile Arg Val Gln Thr Tyr Lys Gly Ala $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Cys Ser Leu Lys Val His Asn Tyr Ser Tyr Ser Val Cys Leu Tyr Cys 20 25 30

Tyr Arg Met Leu Cys Phe Gly Ala Leu Ser Ser Ala Asp Pro Arg Ser 35 40 45

Ser Val Glu Ile His Cys Leu Gly His Ser Leu Ile Arg Met Leu Ala 50 55 60

Gly Asp Phe Val Ser Asp Val Ala Ser Leu Phe Ser Val His Arg Leu 65 70 75 80

Arg Val Thr Thr Val Ala Cys Arg Val His Pro Val Gly Ala Ala Gln 85 90 95

684

Leu Ser Glu Ser Lys Asn Leu Pro Thr Tyr Ser Asn Val Phe Ala Leu 100 105 110

<210> 709

<211> 72

<212> PRT

<213> Homo sapiens

<400> 709

Arg Arg Val Trp Val Leu Phe Pro Pro Gln Arg Pro Glu Ser Gly Trp 1 5 10 15

Gly Val Ser Pro Val Glu Gly Glu Thr Val Pro Ala Leu Arg Gly Met $20 \hspace{1cm} 25 \hspace{1cm} 30$

Lys Lys Ser Val Gly Leu Pro Val Ala Val Gln Cys Val Ala Leu Pro 35 40 45

Trp Gln Glu Leu Cys Leu Arg Phe Met Arg Glu Val Glu Arg Leu 50 55 60

Met Thr Pro Glu Lys Gln Ser Ser 65 70

<210> 710

<211> 84

<212> PRT

<213> Homo sapiens

<400> 710

Arg Leu His Arg Tyr Pro Glu Ala Met Ala Ser Lys Gly Leu Gln Asp 1 5 10 15

Leu Lys Gln Gln Val Glu Gly Thr Ala Gln Glu Ala Val Ser Ala Ala
20 25 30

Gly Ala Ala Gln Gln Val Val Asp Gln Ala Thr Glu Ala Gly Gln 35 40

Lys Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys 50 55 60

Thr Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe 65 70 75 80

685

Gly Leu Leu Lys

<210> 711

<211> 63

<212> PRT

<213> Homo sapiens

<400> 711

Arg Leu His Arg Tyr Pro Glu Ala Met Ala Ser Lys Gly Leu Gln Asp 1 5 10 15

Leu Lys Gln Gln Val Glu Gly Thr Ala Gln Glu Ala Ala Met Asp Gln 20 25 30

Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr Ala Asn Gln Ala 35 40 45

Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly Leu Leu Lys 50 55 60

<210> 712

<211> 86

<212> PRT

<213> Homo sapiens

<400> 712

Arg Leu Ala Asn Arg Ala Ile Met Ser His Lys Gln Ile Tyr Tyr Ser 1 5 10 15

Asp Lys Tyr Asp Asp Glu Glu Phe Glu Tyr Arg His Val Met Leu Pro 20 25 30

Lys Asp Ile Ala Lys Leu Val Pro Lys Thr His Leu Met Ser Glu Ser 35 40 45

Glu Trp Arg Asn Leu Gly Val Gln Gln Ser Gln Gly Trp Val His Tyr 50 60

Met Ile His Glu Pro Glu Pro His Ile Leu Leu Phe Arg Arg Pro Leu 65 70 75 80

Pro Lys Lys Pro Lys Lys

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<21	2> P	RT													
<21	3> H	omo	sapi	ens											
<22	0>														
<22	1> S	ITE													
<22	2> (129)													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 7	13													
Val	Gln	Lys	Ala	Gly	Ala	Arg	Ala	Leu	Ala	Val	Ala	Gly	Ala	Ala	Arc
1				5					10					15	
Thr	Pro	Arg	Ser	Leu	Pro	Gly	Arg	Pro	Ala	Val	Cys	Asn	Met	Thr	Leu
			20			_	_	25			-		30		
Glu	Glu	Phe	Ser	Ala	Gly	Glu	Gln	Lys	Thr	Glu	Arg	Met	Asp	Lys	Val
		35			_		40	-				45	-	-	
Gly	Asp	Ala	Leu	Glu	Glu	Val	Leu	Ser	Lvs	Ala	Leu	Ser	Gln	Ara	Thr
-	50					55			•		60			•	
Ile	Thr	Val	Gly	Val	Tyr	Glu	Ala	Ala	Lvs	Leu	Leu	Asn	Val	Asp	Pro
65			•		70					75			-		80
										. •					•
Asp	Asn	Val	Val	Leu	Cvs	Leu	Leu	Ala	Ala	Asp	Glu	Asp	Asp	Asp	Arc
				85	-1-				90					95	
				•					,,,					,,	
Asn	Val	Ala	Leu	Gln	Tle	His	Phe	Thr	T.en	Tle	Gln	Δla	Dhe	Cvc	Cvs
			100	02			1	105					110	0,0	- 1.
			100					103					110		
Glu	Δen	Δen	Ile	Acn	Tla	Lou	Ara	Val	Thr	Thr	Ara	A1 =	Glv	Tro.	720
Olu	-1	115			110	Lea	120	Val	1111	1111	nr 9	125	OLY	11p	nig
		113					120					123			
Vaa	Dro	A 1 a	Leu	C) v	Acn	Ara	A ra	mrn.	Dro) ra	Gl v	Glu	Ara	C1	A ===
лаа	130	AIA	Leu	GLY	nsp	135	nry	ırp	FIU	ALG	140	GIU	ALG	GLY	Arg
	130					133					140				
N	212	77.	Dwa	C1	D	N1 -	T	*	17.53	17-1	mb ~		D	T7 i -	a
-	Ala	ALA	Pro	Gry		Ата	Leu	Arg	vaı		The	Asn	PIO	ніз	
145					150					155					160
	a 1	.	_		_		_	_	۵٠	_	_,	_		_	_
ser	GIN	Trp	Lys		Pro	ALA	ren	ser		Leu	тте	cys	Pne	_	Arg
				165					170					175	
	_	_							_			_	_		
Glu	ser	-	Tyr		Asp		_			Val	Ile				Glu
			1 2 0					1 115					190		

Arg

WO 00/55173

687

PCT/US00/05881

<210> 714 <211> 200 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (90) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (93) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <400> 714 Gly Pro Gly Ala Cys Ser Gly Pro Ala Pro Ser Pro Arg Arg Pro Gln Ser Val Lys Cys Glu Pro Arg Arg Gly Arg Ile Trp Pro Gly Ala 20 25 30 Gly Gly Val Gly Ala Ala Arg His Val His His Gln Gly Ala Gln Gln Ala Gly Arg Ala Ala Pro His Arg Ser His Ala Ala Ala Gly 55 Gly Gly Pro Ala Arg Arg Ala Pro Glu Met Pro Ala Ala Arg Ala Ala 65 70 Asp Leu Ala Ala Pro Ala Gly Ala Ala Xaa Cys Ala Xaa Pro Gly Pro Trp Pro Leu Ser Ser Pro Gly Pro Arg Leu Val Phe Asn Arg Val Asn 100 105 Gly Arg Arg Ala Pro Ser Thr Ser Pro Ser Phe Glu Gly Thr Gln Glu 115 120 Thr Tyr Thr Val Ala His Glu Glu Asn Val Arg Phe Val Ser Glu Ala 135 140

Trp Gln Gln Val Gln Gln Leu Asp Gly Gly Pro Ala Gly Glu Gly

688

145 150 155 160 Gly Pro Arg Pro Val Gln Tyr Val Glu Arg Thr Pro Asn Pro Arg Leu 165 170 Gln Asn Phe Val Pro Ile Asp Leu Asp Glu Trp Trp Ala Xaa Gln Phe 180 185 Leu Ala Arg Ile Thr Ser Cys Ser 195 <210> 715 <211> 106 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Leu Val Pro Xaa Leu Trp Ser Arg Glu Glu Ala Met Ala Thr Met Glu Asn Lys Val Ile Cys Ala Leu Val Leu Val Ser Met Leu Ala Leu Gly Thr Leu Ala Glu Ala 40 Gln Thr Glu Thr Cys Thr Val Ala Pro Arg Glu Arg Gln Asn Cys Gly Phe Pro Gly Val Thr Pro Ser Gln Cys Ala Asn Lys Gly Cys Cys Phe 70 Asp Asp Thr Val Arg Gly Val Pro Trp Cys Phe Tyr Pro Asn Thr Ile 85

105

<210> 716

<211> 105

<212> PRT

<213> Homo sapiens

Asp Val Pro Pro Glu Glu Glu Cys Glu Phe

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Glu l	Gly	Arg	Glu	Ala 5	Gly	Ser	Gly	Leu	Ser 10	Val	Asp	Ser	Arg	Asp 15	Lys
Gly	His	Glu	Gly 20	Arg	Gly	Leu	Gly	Pro 25	Phe	Arg	Ile	Pro	Gln 30	Asp	Ser
Gln	Val	Gln 35	Leu	Cys	Gln	Lys	Gly 40	Thr	Phe	His	Val	Met 45	Gln	Leu	Arg
Gly	Leu 50	Ser	Leu	Asn	Pro	Arg 55	Leu	Leu	Leu	Thr	Leu 60	Gly	Ser	Phe	Asn
Gln 65	Val	Gly	Gln	Pro	Leu 70	Leu	Gln	Arg	Gly	Val 75	Gly	Trp	Leu	ser	Ser 80
Leu	Ser	His	Ala	Ala 85	Суз	Glu	Asp	Arg	Gly 90	Gly	Gly	Val	Gly	Ser 95	Gly
Lys	Ser	Pro	Glu 100	Asn	Arg	Arg	Gly	Ile 105							
<212 <212	0> 7: 1> 4: 2> P1 3> Ho	31 RT	sapie	ens											
)> 7														
Arg 1	Ala	Ala	Gly	Ile 5	Arg	His	Glu	Arg	Gly 10	Gly	Pro	Thr	Gly	Ser 15	Cys
Pro	Gly	Leu	Pro 20	Ser	Pro	Pro	Met	Val . 25	Leu	Tyr	Ile	Lys	Tyr 30	Pro	Gly
Trp	Arg	Ser 35	His	Met	Leu	Leu	Thr 40	Glu	Gly	Gly	Asn	Туг 45	His	Ser	Ser
Leu	Gly 50	Thr	Arg	Cys	Glu	Leu 55	Ser	Cys	Asp	Arg	Gly 60	Phe	Arg	Leu	Ile
Gly 65	Arg	Arg	Ser	Val	Gln 70	Cys	Leu	Pro	Ser	Arg 75	Arg	Trp	Ser	Gly	Thr 80
Ala	Tyr	Cys	Arg	Gln	Met	Arg	Суз	His	Ala	Leu	Pro	Phe	Ile	Thr	Ser

Gly Thr Tyr Thr Cys Thr Asn Gly Val Leu Leu Asp Ser Arg Cys Asp 100 105 110

Tyr	Ser	115	Ser	Ser	Gly	Tyr	His 120		Glu	Gly	Asp	Arg 125	Ser	Arg	Ile
Cys	Met 130		Asp	Gly	Arg	Trp 135		Gly	Gly	Glu	Pro 140	Val	Cys	Val	Asp
11e 145		Pro	Pro	Lys	11e 150		Cys	Pro	His	Ser 155	Arg	Glu	Lys	Met	Ala 160
Glu	Pro	Glu	Lys	Leu 165	Thr	Ala	Arg	Val	Туг 170	_	Asp	Pro	Pro	Leu 175	Val
			Ala 180					185					190		
		195	Ser				200					205			
	210		Arg			215					220				
225			Arg		230					235					240
			Thr	245					250					255	
			Gly 260					265					270		
		275	Arg				280					285			
	290		Val			295					300				
305			Gln		310					315					320
			Lys	325					330					335	
			Arg 340					345					350		
		355	Gly				360					365			
JIU	370	neu	Arg	GIII	rne	375	Arg	ren	THE	Arg	380	ıyr	rne	ASN	Met

691

Val Leu Ile Asp Lys Gln Gly Ile Asp Arg Asp Arg Tyr Met Glu Pro

Val Thr Pro Glu Glu Ile Phe Thr Phe Ile Asp Asp Tyr Leu Leu Ser 405 410 Asn Gln Glu Leu Thr Gln Arg Arg Glu Gln Arg Asp Ile Cys Glu 425 . 430 <210> 718 <211> 417 <212> PRT <213> Homo sapiens <400> 718 Gln Gly Leu Pro Asp Gly Val Trp Ala His Gly Thr Cys Pro Gly His Arg Leu Val Ser Ser Gln Arg Arg Ile Ile Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Trp Gln Ile Pro Glu Asn Gly Leu Thr Ser Pro 40 Leu Thr Glu Pro Val Val Leu Glu Gly His Thr Lys Arg Val Gly Ile Ile Ala Trp His Pro Thr Ala Arg Asn Val Leu Leu Ser Ala Gly 75 Cys Asp Asn Val Val Leu Ile Trp Asn Val Gly Thr Ala Glu Glu Leu Tyr Arg Leu Asp Ser Leu His Pro Asp Leu Ile Tyr Asn Val Ser Trp 105 Asn His Asn Gly Ser Leu Phe Cys Ser Ala Cys Lys Asp Lys Ser Val 115 Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu Val Ala Glu Arg Glu Lys 135 Ala His Glu Gly Ala Arg Pro Met Arg Ala Ile Phe Leu Ala Asp Gly 150 155 Lys Val Phe Thr Thr Gly Phe Ser Arg Met Ser Glu Arg Gln Leu Ala 165 170

Leu	Trp	Asp	Pro 180	Glu	Asn	Leu	Glu	Glu 185	Pro	Met	Ala	Leu	Gln 190	Glu	Leu
Asp	Ser	Ser 195	Asn	Gly	Ala	Leu	Leu 200	Pro	Phe	Tyr	Asp	Pro 205	Asp	Thr	Ser
Val	Val 210	Tyr	Val	Cys	Gly	Lys 215	Gly	Asp	Ser	Ser	Ile 220	Arg	туг	Phe	Glu
Ile 225	Thr	Glu	Glu	Pro	Pro 230	Tyr	Ile	His	Phe	Leu 235	Asn	Thr	Phe	Thr	Ser 240
Lys	Glu	Pro	Gln	Arg 245	Gly	Met	Gly	Ser	Met 250	Pro	Lys	Arg	Gly	Leu 255	Glu
Val	Ser	Lys	Cys 260	Glu	Ile	Ala	Arg	Phe 265	Tyr	Lys	Leu	His	Glu 270	Arg	Lys
Cys	Glu	Pro 275	Ile	Val	Met	Thr	Val 280	Pro	Arg	Lys	Ser	Asp 285	Leu	Phe	Gln
Asp	Asp 290	Leu	Tyr	Pro	Asp	Thr 295	Ala	Gly	Pro	Glu	Ala 300	Ala	Leu	Glu	Ala
Glu 305	Glu	Trp	Val	Ser	Gly 310	Arg	Asp	Ala	Asp	Pro 315	Ile	Leu	Ile	Ser	Leu 320
Arg	Glu	Ala	Tyr	Val 325	Pro	Ser	Lys	Gln	Arg 330	Asp	Leu	Lys	Ile	Ser 335	Arg
Arg	Asn	Val	Leu 340	Ser	Asp	Ser	Arg	Pro 345	Ala	Met	Ala	Pro	Gly 350	Ser	Ser
His	Leu	Gly 355	Ala	Pro	Ala	Ser	Thr 360	Thr	Thr	Ala	Ala	Asp 365	Ala	Thr	Pro
Ser	Gly 370	Ser	Leu	Ala	Arg	Ala 375	Gly	Glu	Ala	Gly	380 Tàa	Leu	Glu	Glu	Val
Met 385	Gln	Glu	Leu	Arg	Ala 390	Leu	Arg	Ala	Leu	Val 395	Lys	Glu	Gln	Gly	Asp 400
Arg	Ile	Суѕ	Arg	Leu 405	Glu	Glu	Gln	Leu	Gly 410	Arg	Met	Glu	Asn	Gly 415	Asp

Ala

<211> 290 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (74) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (131) <223> Xaa equals any of the naturally occurring L-amino acids Glu Leu Ser Ala Ser Ala Xaa Asp Asp Gly Asn Phe Ser Leu Leu Ile 5 10 Arg Ala Val Glu Glu Thr Asp Ala Gly Leu Tyr Thr Cys Asn Leu His His His Tyr Cys His Leu Tyr Glu Ser Leu Ala Val Arg Leu Glu Val 40 Thr Asp Gly Pro Pro Ala Pro Pro Pro Thr Gly Thr Ala Arg Arg Arg Cys Trp Arg Trp Arg Ala Ala Pro Ala Xaa Leu Thr Cys Val Asn Arg Gly His Val Trp Thr Asp Arg His Val Glu Glu Ala Gln Gln Val Val 85 His Trp Asp Arg Gln Pro Pro Gly Val Pro His Asp Arg Ala Asp Arg 105 Leu Leu Asp Leu Tyr Ala Ser Ala Ser Ala Ala Leu Arg Ala Pro Phe 120 125 Ser Ala Xaa Arg Val Ala Val Gly Ala Asp Ala Phe Lys Arg Gly Asp Phe Ser Leu Arg Ile Glu Pro Leu Glu Val Ala Asp Glu Gly Thr Tyr 150 155

Ser Cys His Leu His His His Tyr Trp Arg Ala Ala Thr Thr Ser Ser

694

170 165 175 Met Ser Ser Pro Arg Ala Glu Pro Thr Ser Ser Ser Trp Ala 185 Thr Cys Trp Pro Arg Cys Cys Ser Ser Ser Cys Tyr Trp Ser Leu Ser 200 Ser Trp Pro Pro Ala Gly Arg Gly Gly Tyr Glu Tyr Ser Asp Gln Lys Ser Gly Lys Ser Lys Gly Lys Asp Val Asn Leu Ala Glu Phe Ala Val 225 230 235 Ala Ala Gly Asp Gln Met Leu Tyr Arg Ser Glu Asp Ile Gln Leu Asp Tyr Lys Asn Asn Ile Leu Lys Glu Arg Ala Glu Leu Ala His Ser Pro 265 Leu Pro Ala Lys Tyr Ile Asp Leu Asp Lys Gly Phe Arg Lys Glu Asn Cys Lys 290 <210> 720 <211> 459 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids <400> 720 Asp Ala His Pro Lys Pro Cys Cys Glu Thr Ser Ala Ala Ala Cys Arg 5 Leu Val Glu Arg Ile Leu Thr Ser Trp Glu Glu Asn Asp Arg Val Gln Cys Ala Gly Gly Pro Arg Lys Gly Tyr Met Gly His Leu Thr Arg Val 40

Ala Xaa Ala Leu Val Gln Asn Thr Glu Lys Gly Pro Asn Ala Glu Gln

Leu 65	Arg	Gln	Leu	Leu	Lys 70	Glu	Leu	Pro	Ser	Glu 75	Gln	Gln	Glu	Gln	Trp 80
Glu	Ala	Phe	Val	Ser 85	Gly	Pro	Leu	Ala	Glu 90	Thr	Asn	Lys	Lys	Asn 95	Met
Val	Asp	Leu	Val 100		Thr	His	His	Leu 105	His	Ser	Ser	Ser	Asp 110	Asp	Glu
Asp	Asp	Arg 115	Leu	Lys	Glu	Phe	Asn 120	Phe	Pro	Glu	Glu	Ala 125	Val	Leu	Gln
	130				Phe	135			_		140				
145					Asn 150	_				155					160
				165	Asp	_			170					175	
			180		Pro			185					190		
		195			Phe		200	_				205			
	210		Ī		Gly	215		-	-		220	-		-	
225					Arg 230 Thr					235				_	240
				245	Glu				250					255	
			260		Tyr			265					270		
		275			Phe		280					285			
	290				Glu	295					300				
305				_	310					315	_				320
GTII	GTÀ	ŁIÜ	TGU	325	Val	510	GIN	GTÀ	330	FIO	THE	3111	SEI	335	WIG

696

Ser Pro Pro Ala Arg Asp Ala Leu Gln Leu Arg Ser Gln Asp Pro Thr 340 345 350

Pro Pro Ser Ala Pro Gln Glu Ala Thr Glu Gly Ser Lys Val Thr Glu 355 360 365

Pro Ser Ala Pro Cys Gln Ala Leu Val Ser Ile Gly Asp Leu Gln Ala 370 380

Thr Phe His Gly Ile Arg Ser Ala Pro Ser Ser Ser Asp Ser Ala Thr 385 390 395 400

Arg Asp Pro Ser Thr Ser Val Pro Ala Ser Gly Ala His Gln Pro Pro 405 410 415

Gln Thr Thr Glu Gly Glu Lys Ser Pro Glu Pro Leu Gly Leu Pro Gln 420 425 430

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Val	Pro	Ile 35	Gly	Ala	Ile	Ile	Cys 40	Ile	Thr	Val	Gly	Lys 45	Pro	Glu	Asp
Ile	Glu 50	Ala	Phe	Lys	Asn	Tyr 55	Thr	Leu	Asp	Ser	Ser 60	Ala	Ala	Pro	Thr
Pro 65	Gln	Ala	Ala	Pro	Ala 70	Pro	Thr	Pro	Ala	Ala 75	Thr	Ala	Ser	Pro	Pro 80
Thr	Pro	Ser	Ala	Gln 85	Ala	Pro	Gly	Ser	Ser 90	Туг	Pro	Pro	His	Met 95	Gln
Val	Leu	Leu	Pro 100	Ala	Leu	Ser	Pro	Thr 105	Met	Thr	Met	Gly	Thr 110	Val	Gln
Arg	Trp	Xaa 115	Lys	Lys	Val	Gly	Glu 120	Lys	Leu	Ser	Glu	Gly 125	Asp	Leu	Leu
Ala	Glu 130	Ile	Glu	Thr	Asp	Lys 135	Ala	Thr	Ile	Gly	Phe 140	Glu	Val	Gln	Glu
Glu 145	Gly	Tyr	Leu	Ala	Lys 150	Ile	Leu	Val	Pro	Glu 155	Gly	Thr	Arg	Asp	Val 160
Pro	Leu	Gly	Thr	Pro 165	Leu	Cys	Ile	Ile	Val 170	Glu	ГÀЗ	Glu	Ala	Asp 175	Ile
Ser	Ala	Phe	Ala 180	Asp	Tyr	Arg	Pro	Thr 185	Glu	Val	Thr	Asp	Leu 190	Lys	Pro
Gln	Xaa	Pro 195	Pro	Pro	Thr	Pro	Pro 200	Pro	Val	Ala	Ala	Val 205	Pro	Pro	Thr
Pro	Gln 210	Pro	Leu	Ala	Pro	Thr 215	Pro	Ser	Ala	Pro	Cys 220	Pro	Ala	Thr	Pro
Ala 225	Gly	Pro	Lys	Gly	Arg 230	Val	Phe	Val	Ser	Pro 235	Leu	Ala	Lys	Lys	Leu 240
Ala	Val	Glu	Lys	Gly 245	Ile	Asp	Leu	Ţhr	Gln 250	Val	Lys	Gly	Thr	Gly 255	Pro
Asp	Gly	Arg	11e 260	Thr	Lys	Lys	Asp	Ile 265	Asp	Ser	Phe	Val	Pro 270	Ser	Lys

Val	Ala	Pro 275	Ala	Pro	Ala	Ala	Val 280	Val	Pro	Pro	Thr	Gly 285	Pro	Gly	Met
Ala	Pro 290	Val	Pro	Thr	Gly	Val 295	Phe	Thr	Asp	Ile	Pro 300	Ile	Ser	Asn	Ile
Arg 305	Arg	Val	Ile	Ala	Gln 310	Arg	Leu	Met	Gln	Ser 315	Lys	Gln	Thr	Ile	Pro 320
His	Tyr	Tyr	Leu	Ser 325	Ile	Xaa	Val	Asn	Met 330	Gly	Glu	Val	Leu	Leu 335	Val
Arg	Lys	Glu	Leu 340	Asn	Lys	Ile	Leu	Glu 345	Gly	Arg	Ser	Lys	11e 350	Ser	Val
Asn	Asp	Phe 355	Ile	Ile	Lys	Ala	Ser 360	Ala	Leu	Ala	Cys	Leu 365	Lys	Val	Pro
Glu	Ala 370	Asn	Ser	Ser	Trp	Met 375	Asp	Thr	Val	Ile	Arg 380	Gln	Asn	His	Val
Val 385	Asp	Val	Ser	Val	Ala 390	Val	Ser	Thr	Pro	Ala 395	Gly	Leu	Ile	Thr	Pro 400
Ile	Val	Phe	Asn	Ala 405	His	Ile	Lys	Gly	Val 410	Glu	Thr	Ile	Ala	Asn 415	Asp
Val	Val	Ser	Leu 420	Ala	Thr	Lys	Ala	Arg 425	Glu	Gly	Lys	Leu	Gln 430	Pro	His
Glu	Phe	Gln 435	Gly	Gly	Thr	Phe	Thr 440	Ile	Ser	Asn	Leu	Gly 445	Met	Phe	Gly
Ile	Lys 450	Asn	Phe	Ser	Ala	Ile 455	Ile	Asn	Pro	Pro	Gln 460	Ala	Cys	Ile	Leu
Ala 465	Ile	Gly	Ala	Ser	Glu 470	Asp	Lys	Leu	Val	Pro 475	Ala	Asp	Asn	Glu	Lys 480
Gly	Phe	Asp	Val	Ala 485	Ser	Met	Met	Ser	Val 490	Thŗ	Leu	Ser	Cys	Asp 495	His
Arg	Val	Val	Asp 500	Gly	Ala	Val	Gly	Ala 505	Gln	Trp	Leu	Ala	Glu 510	Phe	Arg
Lys	Tyr	Leu 515	Glu	Lys	Pro	Ile	Thr 520	Met	Leu	Leu					

PCT/US00/05881 WO 00/55173

699

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Lys Ala Ser Ala Ala Gln Leu Arg Ile Gln Lys Asp Ile Asn Glu Leu 35 40

25

Asn Leu Pro Lys Thr Cys Asp Ile Ser Phe Ser Asp Pro Asp Asp Leu 55

Leu Asn Phe Lys Leu Val Ile Cys Pro Asp Glu Gly Phe Tyr Lys Ser 70 Gly Lys Phe Val Phe Ser Phe Lys Val Gly Gln Gly Tyr Pro His Asp 90 Pro Pro Lys Val Lys Cys Glu Thr Met Val Tyr His Pro Asn Ile Asp 105 Leu Glu Gly Asn Val Cys Leu Asn Ile Leu Arg Glu Asp Trp Lys Pro 120 Val Leu Thr Ile Asn Ser Ile Ile Tyr Gly Leu Gln Tyr Leu Phe Leu 130 135 140 Glu Pro Asn Pro Glu Asp Pro Leu Asn Lys Glu Ala Ala Glu Val Leu 150 Gln Asn Asn Arg Arg Leu Phe Glu Gln Asn Val Gln Arg Ser Met Arg 165 170 Gly Gly Tyr Ile Gly Ser Thr Tyr Phe Glu Arg Cys Leu Lys 180 185 <210> 724 <211> 524 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (247) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (417) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (440) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (443) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 724

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Pro	Gly	Ala	Ala 20	Ser	Val	Gln	Thr	Leu 25	Pro	Ser	Val	Thr	Met 30	Lys	Leu
Trp	Val	Ser 35	Ala	Leu	Leu	Met	Ala 40	Trp	Phe	Gly	Val	Leu 45	Ser	Cys	Val
Gln	Ala 50	Glu	Phe	Phe	Thr	Ser 55	Ile	Gly	His	Met	Thr 60	Asp	Leu	Ile	Туг
Ala 65	Glu	Lys	Glu	Leu	Val 70	Gln	Ser	Leu	Lys	Glu 75	Туг	Ile	Leu	Val	Glu 80
Glu	Ala	Lys	Leu	Ser 85	Lys	Ile	Lys	Ser	Trp 90	Ala	Asn	Lys	Met	Glu 95	Ala
Leu	Thr	Ser	Lys 100	Ser	Ala	Ala	Asp	Ala 105	Glu	Gly	Туr	Leu	Ala 110	His	Pro
Val	Asn	Ala 115	Tyr	Lys	Leu	Val	Lys 120	Arg	Leu	Asn	Thr	Asp 125	Trp	Pro	Ala
Leu	Glu 130	Asp	Leu	Val	Leu	Gln 135	Asp	Ser	Ala	Ala	Gly 140	Phe	Ile	Ala	Asn
Leu 145	Ser	Val	Gln	Arg	Gln 150	Phe	Phe	Pro	Thr	Asp 155	Glu	Asp	Glu	Ile	Gly 160
Ala	Ala	Lys	Ala	Leu 165	Met	Arg	Leu	Gln	Asp 170	Thr	Tyr	Arg	Leu	Asp 175	Pro
Gly	Thr	Ile	Ser 180	Arg	Gly	Glu	Leu	Pro 185	Gly	Thr	Lys	Tyr	Gln 190	Ala	Met
Leu	Ser	Val 195	Asp	Asp	Cys	Phe	Gly 200	Met	Gly	Arg	Ser	Ala 205	Tyr	Asn	Glu
Gly	Asp 210	Tyr	Tyr	His	Thr	Val 215	Leu	Trp	Met	Glu	Gln 220	Val	Leu	Lys	Gln
Leu 225	Asp	Ala	Gly	Glu	Glu 230	Ala	Thr	Thr	Thr	Lys 235	Ser	Gln	Val	Leu	Asp 240
Tyr	Leu	Ser	туг	Ala 245	Val	Xaa	Gln	Leu	Gly 250	Asp	Leu	His	Arg	Ala 255	Leu
Glu	Leu	Thr	Arg	Arg	Leu	Leu	Ser	Leu	Asp	Pro	Ser	His	Glu	Arg	Ala

			260					265					270		
Gly	Gly	Asn 275	Leu	Arg	Tyr	Phe	Glu 280	Gln	Leu	Leu	Glu	Glu 285	Glu	Arg	Glu
Lys	Thr 290	Leu	Thr	Asn	Gln	Thr 295	Glu	Ala	Glu	Leu	Ala 300	Thr	Pro	Glu	Gly
Ile 305	Tyr	Glu	Arg	Pro	Val 310	Asp	Tyr	Leu	Pro	Glu 315	Arg	Asp	Val	Tyr	Glu 320
Ser	Leu	Cys	Arg	Gly 325	Glu	Gly	Val	Lys	Leu 330	Thr	Pro	Arg	Arg	Gln 335	Lys
Arg	Leu	Phe	Cys 340	Arg	Tyr	His	His	Gly 345	Asn	Arg	Ala	Pro	Gln 350	Leu	Leu
Ile	Ala	Pro 355	Phe	Lys	Glu	Glu	Asp 360	Glu	Trp	Asp	Ser	Pro 365	His	Ile	Val
Arg	Tyr 370	Tyr	Asp	Val	Met	Ser 375	Asp	Glu	Glu	Ile	Glu 380	Arg	Ile	Lys	Glu
Ile 385	Ala	Lys	Pro	Lys	Leu 390	Ala	Arg	Ala	Thr	Val 395	Arg	Asp	Pro	Lys	Thr 400
Gly	Val	Leu	Thr	Val 405	Ala	Ser	Tyr	Arg	Val 410	Ser	Lys	Ser	Ser	Trp 415	Leu
Xaa	Glu	Asp	Asp 420	Asp	Pro	Val	Val	Ala 425	Arg	Val	Asn	Arg	Arg 430	Met	Gln
His	Ile	Thr 435	Gly	Leu	Thr	Val	Xaa 440	Thr	Ala	Xaa	Leu	Leu 445	Gln	Val	Ala
Asn	Tyr 450	Gly	Val	Gly	Gly	Gln 455	Tyr	Glu	Pro	His	Phe 460	Asp	Phe	Ser	Arg
Asn 465	Asp	Glu	Arg	Asp	Thr 470	Phe	Lys	His	Leu	Gly 475	Thr	Gly	Asn	Arg	Val 480
Ala	Thr	Phe	Leu	Asn 485	Tyr	Met	Ser	Asp	Val 490	Glu	Ala	Gly	Gly	Ala 495	Thr
Val	Phe	Pro	Asp 500	Leu	Gly	Ala	Ala	Ile 505	Trp	Pro	Lys	Lys	Gly 510	Thr	Ala
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His Glu Glu Ile Val Ser Gln Arg Leu Met Leu Leu Gln Gln Met Glu
                                25
Asn Lys Leu Gly Asp Gln His Thr Glu Lys Ala Ser Gln Leu Gln Thr
                             40
Val Glu Thr Ala Phe Lys Arg Asn Leu Ser Leu Leu Lys Asp Ile Glu
Ala Ala Glu Lys Ser Leu Gln Thr Arg Ile His Pro Leu Pro Arg Pro
Glu Val Val Ser Leu Glu Thr Arg Tyr Trp Ala Ser
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Val 1	Ser	Arg	Ser	Pro 5	Arg	Val	Pro	Leu	Pro 10	Pro	Arg	Ser	Phe	Ser 15	Arg
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Asp	Arg	Ala 35	Ala	Pro	His	Ile	Leu 40	Pro	Ala	Gly	Ala	His 45	Arg	Ala	Ala
Thr	Ala 50	Pro	Gly	Leu	Gly	Gly 55	Gly	Pro	Glu	Pro	Leu 60	Gly	Arg	Ala	Leu
Ala 65	Gly	Gly	Leu	Arg	Gly 70	Pro	Gln	Gly	Asn	Gly 75	Trp	Leu	Gln	Glu	Arg 80
Lys	Arg	Arg	Cys	Pro 85	Gly	Leu	Ala	Gly	Cys 90	Phe	Glu	Ala	Ile	Ser 95	Cys
Gly	Thr	Gly	Leu 100	Gly	Leu	Pro	Gly	Leu 105	Ala	Leu	Xaa	Arg	Glu 110	Leu	Ile
Ser	Trp	Gly 115	Ala	Pro	Gly	Ser	Ala 120	Asp	Ser	Xaa	Arg	Leu 125	Leu	His	Trp
Gly	Ser 130	His	Pro	Thr	Ala	Phe 135	Val	Val	Ser	туг	Ala 140	Ala	Ala	Leu	Pro
Ala 145	Ala	Ala	Leu	Trp	His 150	Lys	Leu	Gly	Ser	Leu 155	Trp	Val	Pro	Gly	Gly 160
Gln	Gly	Gly	Ser	Gly 165	Asn	Pro	Val	Arg	Arg 170	Leu	Leu	Gly	Cys	Leu 175	Gly
Ser	Glu	Thr	Arg 180	Arg	Leu	Ser	Leu	Phe 185	Leu	Val	Leu	Val	Val 190	Leu	Ser
Ser	Leu	Gly 195	Glu	Met	Ala	Ile	Pro 200	Phe	Phe	Thr	Gly	Arg 205	Leu	Thr	Asp
Trp	Ile 210	Leu	Gln	Asp	Gly	Ser 215	Ala	Asp	Thr	Phe	Thr 220	Arg	Asn	Leu	Thr
Leu 225	Met	Ser	Ile	Leu	Thr 230	Ile	Ala	Ser	Ala	Val 235	Leu	Glu	Phe	Val	Gly 240

Asp	o Gly	' Ile	: Tyr	245	ı Asn	Thr	Met	Gly	His 250		His	Ser	His	Leu 255	Gln
Gly	Glu	Val	. Phe 260		Alä	Val	Leu	Arg 265		Glu	Thr	Glu	Phe 270	Phe	Gln
Gln	Asn	Gln 275		Gly	Asn	Ile	Met 280		Arg	Val	Thr	G1u 285	Asp	Thr	Ser
Thr	290		Asp	Ser	Leu	Ser 295		Asn	Leu	Ser	Leu 300	Phe	Leu	Trp	Tyr
Leu 305		Arg	Gly	Leu	310	Leu	Leu	Gly	Ile	Met 315	Leu	Trp	Gly	Ser	Val 320
				325					330					335	
			340		Lys			345					350		
		355		-	Ser		360					365			
	370				Ser	375					380				-
385					Gln 390			•		395			-		400
				405	Asn				410					415	
			420		Leu			425					430		
		435			Asn		440					445			
	450				Glu	455					460				
465					Ser 470					475					480
				485	Ser				490					495	
Leu	Val	Gln	Phe 500	Gln	Asp	Val	Ser	Phe 505	Ala	Tyr	Pro	Asn	Arg 510	Pro	Asp

Val Leu Val Leu Gln Gly Leu Thr Phe Thr Leu Arg Pro Gly Glu Val 520 Thr Ala Leu Val Gly Pro Asn Gly Ser Gly Lys Ser Thr Val Ala Ala 535 540 Leu Leu Gln Asn Leu Tyr Gln Pro Thr Gly Gly Gln Leu Leu Leu Asp 550 555 Gly Lys Pro Leu Pro Gln Tyr Glu His Arg Tyr Leu His Arg Gln Val 570 Ala Ala Val Gly Gln Glu Pro Gln Val Phe Gly Arg Ser Leu Gln Glu 580 Asn Ile Ala Tyr Gly Leu Thr Gln Lys Pro Thr Met Glu Glu Ile Thr 600 Ala Ala Ala Val Lys Ser Gly Ala His Ser Phe Ile Ser Gly Leu Pro 615 620 Gln Gly Tyr Asp Thr Glu Val Asp Glu Ala Gly Ser Gln Leu Ser Gly Gly Gln Arg Gln Ala Val Ala Leu Ala Arg Ala Leu Ile Arg Lys Pro 650 Cys Val Leu Ile Leu Asp Asp Ala Thr Ser Ala Leu Asp Ala Asn Ser 660 665 Gln Leu Gln Val Glu Gln Leu Leu Tyr Glu Ser Pro Glu Arg Tyr Xaa 680 Arg Xaa 690 <210> 727 <211> 82 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (44) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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                                 25
Pro Tyr Glu Asn Leu Met Pro Asp Asp Leu Arg Xaa Asn Ser Phe Ile
                             40
Leu Lys Pro Pro Phe Thr Leu Gln Ser Val Glu Lys Leu Ser Ser Thr
     50
                         55
Lys Leu Val Pro Gly Ala Lys Asn Xaa Gly Asp Arg Cys Ser Arg Glu
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Arg Ser
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Ser	Arg	Arg	Gly 20	Arg	His	Gly	Ala	Val 25	Pro	Gly	Asp	Trp	Glu 30	Ala	Ala
Ala	Gln	Ala 35	Arg	Gly	Ala	Gly	Gln 40	Arg	Leu	Pro	Thr	Pro 45	Ser	Glu	Ile
Leu	Ser 50	Asn	Ala	Gly	Leu	Arg 55	Phe	Glu	Val	Val	Pro 60	Ser	Lys	Phe	Lys
Glu 65	Lys	Leu	Asp	Lys	Ala 70	Ser	Phe	Ala	Thr	Pro 75	Tyr	Gly	Tyr	Ala	Met 80
Glu	Thr	Ala	Lys	Gln 85	Lys	Ala	Leu	Glu	Val 90	Ala	Asn	Arg	Leu	Tyr 95	Glr
Lys	Asp	Leu	Arg 100	Ala	Pro	Asp	Val	Val 105	Ile	Gly	Ala	Asp	Thr 110	Ile	Va]
Thr	Val	Gly 115	Gly	Leu	Ile	Leu	Glu 120	Lys	Pro	Val	Asp	Lys 125	Gln	Asp	Ala
Tyr	Arg 130	Met	Leu	Ser	Arg	Leu 135	Ser	Gly	Arg	Glu	His 140	Ser	Val	Phe	Thi
Gly 145	Val	Ala	Ile	Val	His 150	Суз	Ser	Ser	Lys	Asp 155	His	Gln	Leu	Asp	Th:
Arg	Val	Ser	Glu	Phe 165	Tyr	Glu	Glu	Thr	Lys 170	Val	Lys	Phe	Ser	Glu 175	Leu
Ser	Glu	Glu	Leu 180	Leu	Trp	Glu	Tyr	Val 185	His	Ser	Gly	Glu	Pro 190	Met	Asp
Lys	Ala	Gly 195	Gly	Tyr	Gly	Ile	Gln 200	Ala	Leu	Gly	Gly	Met 205	Leu	Val	Glu
Ser	Val 210	His	Gly	Asp	Phe	Leu 215	Asn	Val	Val	Gly	Phe 220	Pro	Leu	Asn	His
Phe 225	Cys	Lys	Gln	Leu	Val 230	Lys	Leu	Tyr	Туг	Pro 235	Pro	Arg	Pro	Glu	Asp 240
Leu	Arg	Arg	Ser	Val 245	Lys	His	Asp	Ser	Ile 250	Pro	Ala	Ala	Asp	Thr 255	Phe

GIU	Asp	rea	260	Азр	val	GIU	GIY	265	GIĄ	ser	GIU	PIO	270	GIN	ALG
Asp	Ala	Gly 275	Ser	Arg	Asp	Glu	Lys 280	Ala	Glu	Ala	Gly	Glu 285	Ala	Gly	Gln
Ala	Thr 290	Ala	Glu	Ala	Glu	Cys 295	His	Arg	Thr	Arg	Glu 300	Thr	Leu	Pro	Pro
Phe 305	Pro	Thr	Arg	Leu	Leu 310	Glu	Leu	Ile	Glu	Gly 315	Phe	Met	Leu	Ser	Lys 320
Gly	Leu	Leu	Thr	Ala 325	Суз	Lys	Leu	Lys	Val 330	Phe	Asp	Leu	Leu	Lys 335	Asp
Glu	Ala	Pro	Gln 340	Lys	Ala	Ala	Asp	11e 345	Ala	Ser	Lys	Val	Asp 350	Ala	Ser
Ala	Cys	G1y 355	Met	Glu	Arg	Leu	Leu 360	Asp	Ile	Cys	Ala	Ala 365	Met	Gly	Leu
	370			Glu		375	-				380				
385				Asp	390					395					400
		_		Thr 405	•				410	-				415	
·			420	Asn				425			_	_	430		
		435		Asp			440					445			
	450			Met		455			-		460				
465				Asn	470		_			475			-		480
				Ala 485					490					495	
			500	Val				505					510		
lis	Phe	Gln 515	Pro	Pro	Gly	Pro	Gln 520	Gln	Cys	Arg	Ser	Thr 525	Ser	Gln	Gln

Val Thr Phe Ser Gly Thr Pro Ser Pro Ala Leu Ser Cys Thr Ser Cys 535 Ala Gly Ser Cys Met Xaa Gly Gln Thr Thr Lys Ser Thr Ser Tyr Ser 550 555 Ala Gly Ser Pro Arg Ala Ala Ser Gln Gly Pro Ala Cys Cys Trp Trp Arg Arg Ser Trp Met Arg Arg Gly Trp Arg Xaa Arg Xaa Asp Ala 585 Val Thr Glu His Ala Gly Ala Asp 595 <210> 729 <211> 535 <212> PRT <213> Homo sapiens <400> 729 Gly Arg Ser Ser Phe Thr Ser Leu Val Val Gly Val Phe Val Val Tyr 5 Val Val His Thr Cys Trp Val Met Tyr Gly Ile Val Tyr Thr Arg Pro Cys Ser Gly Asp Ala Asn Cys Ile Gln Pro Tyr Leu Ala Arg Arg Pro Lys Leu Gln Leu Ser Val Tyr Thr Thr Thr Arg Ser His Leu Gly Ala 55 Glu Asn Asn Ile Asp Leu Val Leu Asn Val Glu Asp Phe Asp Val Glu Ser Lys Phe Glu Arg Thr Val Asn Val Ser Val Pro Lys Lys Thr Arg 85 90 Asn Asn Gly Thr Leu Tyr Ala Tyr Ile Phe Leu His His Ala Gly Val 105 Leu Pro Trp His Asp Gly Lys Gln Val His Leu Val Ser Pro Leu Thr 120

Thr Tyr Met Val Pro Lys Pro Glu Glu Ile Asn Leu Leu Thr Gly Glu

ser 145	Asp	Thr	GIN	GIN	11e 150	GIU	Ala	GIU	Lys	155	Pro	Thr	ser	AIA	160
Asp	Glu	Pro	Val	Ser 165	His	Trp	Arg	Pro	Arg 170	Leu	Ala	Leu	Asn	Val 175	Met
Ala	Asp	Asn	Phe 180	Val	Phe	Asp	Gly	Ser 185	Ser	Leu	Pro	Ala	Asp 190	Val	His
	-	195					200	_	_		Val	205			
	210					215					Lys 220				
225					230					235	Val				240
				245					250		Met			255	
			260					265			Asp		270		
		275					280		_		Leu	285			
	290					295			_		300			-	
305					310					315	Ile				320
_				325					330		Val			335	
			340					345			Val		350	_	
		355					360		•		Ala	365			
	370					375					Phe 380				
385					390					395	Gln				400
Leu	ser	Tyr	Leu	Leu 405	Tyr	Pro	Leu	Cys	Val 410	GTĀ	Gly	Ala	val	Tyr 415	Ser

Leu Leu Asn Ile Lys Tyr Lys Ser Trp Tyr Ser Trp Leu Ile Asn Ser Phe Val Asn Gly Val Tyr Ala Phe Gly Phe Leu Phe Met Leu Pro Gln 440 Leu Phe Val Asn Tyr Lys Leu Lys Ser Val Ala His Leu Pro Trp Lys 455 Ala Phe Thr Tyr Lys Ala Phe Asn Thr Phe Ile Asp Asp Val Phe Ala 465 470 475 Phe Ile Ile Thr Met Pro Thr Ser His Arg Leu Ala Cys Phe Arg Asp Asp Val Val Phe Leu Val Tyr Leu Tyr Gln Arg Trp Leu Tyr Pro Val 505 Asp Lys Arg Arg Val Asn Glu Phe Gly Glu Ser Tyr Glu Glu Lys Ala 515 520 Thr Arg Ala Pro His Thr Asp <210> 730 <211> 288 <212> PRT <213> Homo sapiens <400> 730 Arg Pro Ala Gly Val Thr Glu Leu Gln Pro Arg Ala Pro Gly Gly Gly Gly Met Glu Ala Ala Ala Glu Pro Gly Asn Leu Ala Gly Val Arg His 20 Ile Ile Leu Val Leu Ser Gly Lys Gly Gly Val Gly Lys Ser Thr Ile Ser Thr Glu Leu Ala Leu Ala Leu Arg His Ala Gly Lys Lys Val Gly 55 60 Ile Leu Asp Val Asp Leu Cys Gly Pro Ser Ile Pro Arg Met Leu Gly Ala Gln Gly Arg Ala Val His Gln Cys Asp Arg Gly Trp Ala Pro Val

90

Phe Leu Asp Arg Glu Gln Ser Ile Ser Leu Met Ser Val Gly Phe Leu

713

100 105 110 Leu Glu Lys Pro Asp Glu Ala Val Val Trp Arg Gly Pro Lys Lys Asn 120 Ala Leu Ile Lys Gln Phe Val Ser Asp Val Ala Trp Gly Glu Leu Asp Tyr Leu Val Val Asp Thr Pro Pro Gly Thr Ser Asp Glu His Met Ala 155 150 Thr Ile Glu Ala Leu Arg Pro Tyr Gln Pro Leu Gly Ala Leu Val Val 170 Thr Thr Pro Gln Ala Val Ser Val Gly Asp Val Arg Arg Glu Leu Thr 185 Phe Cys Arg Lys Thr Gly Leu Arg Val Met Gly Ile Val Glu Asn Met 200 Ser Gly Phe Thr Cys Pro His Cys Thr Glu Cys Thr Ser Val Phe Ser 215 Arg Gly Gly Glu Glu Leu Ala Gln Leu Ala Gly Val Pro Phe Leu 235 230 Gly Ser Val Pro Leu Asp Pro Ala Leu Met Arg Thr Leu Glu Glu Gly 245 250 His Asp Phe Ile Gln Glu Phe Pro Gly Ser Pro Ala Phe Ala Ala Leu 260 Thr Ser Ile Ala Gln Lys Ile Leu Asp Ala Thr Pro Ala Cys Leu Pro 280

<210> 731

<211> 737

<212> PRT

<213> Homo sapiens

<400> 731

Asp Gln Leu Cys Gly Pro Gln Thr Tyr Lys Glu His Leu Glu Gly Gln
1 5 10 15

Lys His Lys Lys Glu Ala Ala Leu Lys Ala Ser Gln Asn Thr Ser 20 25 30

Ser	Ser	Asn 35	Ser	Ser	Thr	Arg	Gly 40	Thr	Gln	Asn	Gln	Leu 45	Arg	Cys	Glu
Leu	Cys 50	Asp	Val	Ser	Cys	Thr 55	Gly	Ala	Asp	Ala	Tyr 60	Ala	Ala	His	Ile
Arg 65	Gly	Ala	Lys	His	Gln 70	Lys	Val	Val	Lys	Leu 75	His	Thr	Lys	Leu	Gly 80
Lys	Pro	Ile	Pro	Ser 85	Thr	Glu	Pro	Asn	Val 90	Val	Ser	Gln	Ala	Thr 95	Ser
Ser	Thr	Ala	Val 100	Ser	Ala	Ser	Lys	Pro 105	Thr	Ala	Ser	Pro	Ser 110	Ser	Ile
Ala	Ala	Asn 115	Asn	Cys	Thr	Val	Asn 120	Thr	Ser	Ser	Ile	Ala 125	Thr	Ser	Ser
Met	Lys 130	Gly	Leu	Thr	Thr	Thr 135	Gly	Asn	Ser	Ser	Leu 140	Asn	Ser	Thr	Ser
Asn 145	Thr	Lys	Val	Ser	Ala 150	Val	Pro	Thr	Asn	Met 155	Ala	Ala	Lys	Lys	Thr 160
Ser	Thr	Pro	Lys	Ile 165	Asn	Phe	Val	Gly	Gly 170	Asn	Lys	Leu	Gln	Ser 175	Thr
Gly	Asn	Lys	Ala 180	Glu	Asp	Thr	Lys	Gly 185	Thr	Glu	Cys	Val	Lys 190	Ser	Thr
Pro	Val	Thr 195	Ser	Ala	Val	Gln	Ile 200	Pro	Glu	Val	Lys	Gln 205	Asp	Thr	Val
Ser	Glu 210	Pro	Val	Thr	Pro	Ala 215	Ser	Leu	Ala	Ala	Leu 220	Gln	Ser	Asp	Val
Gln 225	Pro	Val	Gly	His	Asp 230	туr	Val	Glu	Glu	Val 235	Arg	Asn	Asp	Glu	Gly 240
Lys	Val	Ile	Arg	Phe 245	His	Cys	Lys	Leu	Cys 250	Glu	Cys	Ser	Phe	Asn 255	Asp
Pro	Asn	Ala	Lys 260	Glu	Met	His	Leu	Lys 265	Gly	Arg	Arg	His	Arg 270	Leu	Gln
Tyr	Lys	Lys 275	Lys	Val	Asn	Pro	Asp 280	Leu	Gln	Val	Glu	Val 285	Lys	Pro	Ser
Ile	Arg 290	Ala	Arg	Lys	Ile	Gln 295	Glu	Glu	Lys	Met	Arg 300	Lys	Gln	Met	Gln

195 305	GIU	GIU	Tyr	тър	310	Arg	arg	GIU	GIU	315	GIU	Arg	тгр	Arg	320
Glu	Met	Arg	Arg	Tyr 325	Glu	Glu	Asp	Met	туг 330	Trp	Arg	Arg	Met	Glu 335	Glu
Glu	Gln	His	His 340	Trp	Asp	Asp	Arg	Arg 345	Arg	Met	Pro	Asp	Gly 350	Gly	Tyr
Pro	His	Gly 355	Pro	Pro	Gly	Pro	Leu 360	Gly	Leu	Leu	Gly	Val 365	Arg	Pro	Gly
Met	Pro 370	Pro	Gln	Pro	Gln	Gly 375	Pro	Ala	Pro	Leu	Arg 380	Arg	Pro	Asp	Ser
Ser 385		Asp	Arg	Tyr	Val 390	Met	Thr	Lys	His	Ala 395	Thr	Ile	Tyr	Pro	Thr 400
Glu	Glu	Glu	Leu	Gln 405	Ala	Val	Gln	Lys	Ile 410	Val	Ser	Ile	Thr	Glu 415	Arg
			420	Val		-		425					430		
		435		Asp		_	440					445			
	450			Arg		455					460				
465				Val	470					475					480
_				Ser 485					490					495	
			500	Glu	-	-		5 05	-	•			510		
		515		Asn		-	520			-		525			
Thr	Leu 530	Thr	Ser	Pro	Ile	Ile 535	Arg	Glu	Glu	Asn	Met 540	Arg	Glu	Gly	ysb
Val 545	Thr	Ser	Gly	Met	Val 550	Lys	Asp	Pro	Pro	Asp 555	Val	Leu	Asp	Arg	Gln 560
Lys	Суз	Leu	Asp	Ala 565	Leu	Ala	Ala	Leu	Arg 570	His	Ala	Lys	Trp	Phe 575	Gln

Ala	Arg	Ala	Asn 580	Gly	Leu	Gln	Ser	Cys 585	Val	Ile	Ile	Ile	Arg 590	Ile	Le
Arg	Asp	Leu 595	Суз	Gln	Arg	Val	Pro 600	Thr	Trp	Ser	Asp	Phe 605	Pro	Ser	Tr
Ala	Met 610	Glu	Leu	Leu	Val	Glu 615	Lys	Ala	Ile	Ser	Ser 620	Ala	Ser	Ser	Pro
Gln 625	Ser	Pro	Gly	Asp	Ala 630	Leu	Arg	Arg	Val	Phe 635	Glu	Cys	Ile	Ser	Ser 640
Gly	Ile	Ile	Leu	Lys 645	Gly	Ser	Pro	Gly	Leu 650	Leu	Asp	Pro	Cys	Glu 655	Lys
Asp	Pro	Phe	Asp 660	Thr	Leu	Ala	Thr	Met 665	Thr	Asp	Gln	Gln	Arg 670	Glu	Asp
Ile	Thr	Ser 675	Ser	Ala	Gln	Phe	Ala 680	Leu	Arg	Leu	Leu	Ala 685	Phe	Arg	Gl
Ile	His 690	Lys	Val	Leu	Gly	Met 695	Asp	Pro	Leu	Pro	Gln 700	Met	Ser	Gln	Arg

Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg Asp Ser Asp Gly Val 710

Asp Gly Phe Glu Ala Glu Gly Lys Lys Asp Lys Lys Asp Tyr Asp Asn 730

Phe

<210> 732 <211> 106

<212> PRT

<213> Homo sapiens

<400> 732

Gly Arg Gly Leu Asn Ser Pro Lys Glu Leu Arg Pro Leu Thr Arg Ala

Ala Pro Ala Ala Ala Cys Thr Gly Pro Gly Ala Ala Met Pro Lys

Cys Pro Lys Cys Asn Lys Glu Val Tyr Phe Ala Glu Arg Val Thr Ser 35 40

Ala Ser Cys Leu Gln Ser Val Ala Ser Ala Cys Ala Ser Phe Pro Ala

Pro Ser Trp Arg Gly Thr Arg Lys Arg Asn Ala Thr Asp Arg Val Thr
20 25 30

Gln Cys Lys Tyr Lys Arg Ile Gly Cys Pro Trp His Gly Pro Phe His 35 40 45

Glu Leu Thr Val His Glu Ala Ala Cys Ala His Pro Thr Lys Thr Gly
50 55 60

Ser Glu Leu Met Glu Ile Leu Asp Gly Met Asp Gln Ser His Arg Lys 65 70 75 80

Glu Met Gln Leu Tyr Asn Ser Ile Phe Ser Leu Leu Ser Phe Glu Lys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ile Gly Tyr Thr Glu Val Gln Phe Arg Pro Tyr Arg Thr Asp Asp Phe 100 105 110

Ile Thr Arg Leu Tyr Tyr Glu Thr Pro Arg Phe Thr Val Leu Asn Gln 115 120 125

Thr Trp Val Leu Lys Ala Arg Val Asn Asp Ser Glu Arg Asn Pro Asn 130 135 140

Leu Ser Cys Lys Arg Thr Leu Ser Phe Gln Leu Leu Leu Lys Ser Lys 145 150 155 160

Val Thr Ala Pro Leu Glu Cys Ser Phe Leu Leu Leu Lys Gly Pro Tyr

718

165 170 175 Asp Asp Val Arg Ile Ser Pro Val Ile Tyr His Phe Val Phe Thr Asn 180 185 Glu Ser Asn Glu Thr Asp Tyr Val Pro Leu Pro Ile Ile Asp Ser Val 195 200 Glu Cys Asn Lys Leu Leu Ala Ala Lys Asn Ile Asn Leu Arg Leu Phe 215 220 Leu Phe Gln Ile Gln Lys 225 <210> 734 <211> 222 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (18) <223> Xaa equals any of the naturally occurring L-amino acids Gly Arg Pro Ala Pro Pro Ala Ala Arg Ala Gly Ala His Ser Arg Gly Ala Xaa Ala Pro Pro Ala Ala Ile Asp Met Met Phe Pro Gln Ser Arg His Ser Gly Ser Ser His Leu Pro Gln Gln Leu Lys Phe Thr Thr Ser 35 40 Asp Ser Cys Asp Arg Ile Lys Asp Glu Phe Gln Leu Leu Gln Ala Gln Tyr His Ser Leu Lys Leu Glu Cys Asp Lys Leu Ala Ser Glu Lys Ser 65 70 75 Glu Met Gln Arg His Tyr Val Met Tyr Tyr Glu Met Ser Tyr Gly Leu 85 Asn Ile Glu Met His Lys Gln Ala Glu Ile Val Lys Arg Leu Asn Gly 105

Ile Cys Ala Gln Val Leu Pro Tyr Leu Ser Gln Glu His Gln Gln

120

Val Leu Gly Ala Ile Glu Arg Ala Lys Gln Val Thr Ala Pro Glu Leu Asn Ser Ile Ile Arg Gln Gln Leu Gln Ala His Gln Leu Ser Gln Leu 150 155 Gln Ala Leu Ala Leu Pro Leu Thr Pro Leu Pro Val Gly Leu Gln Pro 170 Pro Ser Leu Pro Ala Val Ser Ala Gly Thr Gly Leu Leu Ser Leu Ser 185 Ala Leu Gly Ser Gln Ala His Leu Ser Lys Glu Asp Lys Asn Gly His 200 Asp Gly Asp Thr His Gln Glu Asp Asp Gly Glu Lys Ser Asp 215 <210> 735 <211> 248 <212> PRT <213> Homo sapiens <400> 735 Gly Thr Ser Asp Met Glu Leu Phe Leu Ala Gly Arg Arg Val Leu Val Thr Gly Ala Gly Lys Gly Ile Gly Arg Gly Thr Val Gln Ala Leu His Ala Thr Gly Ala Arg Val Val Ala Val Ser Arg Thr Gln Ala Asp Leu Asp Ser Leu Val Arg Glu Cys Pro Gly Ile Glu Pro Val Cys Val Asp Leu Gly Asp Trp Glu Ala Thr Glu Arg Ala Leu Gly Ser Val Gly Pro Val Asp Leu Leu Val Asn Asn Ala Ala Val Ala Leu Leu Gln Pro Phe 85 90 Leu Glu Val Thr Lys Glu Ala Phe Asp Arg Ser Phe Glu Val Asn Leu Arg Ala Val Ile Gln Val Ser Gln Ile Val Ala Arg Gly Leu Ile Ala

120

Arg Gly Val Pro Gly Ala Ile Val Asn Val Ser Ser Gln Cys Ser Gln

130 135 140 Arg Ala Val Thr Asn His Ser Val Tyr Cys Ser Thr Lys Gly Ala Leu 150 155 Asp Met Leu Thr Lys Val Met Ala Leu Glu Leu Gly Pro His Lys Ile 165 170 Arg Val Asn Ala Val Asn Pro Thr Val Val Met Thr Ser Met Gly Gln 185 Ala Thr Trp Ser Asp Pro His Lys Ala Lys Thr Met Leu Asn Arg Ile Pro Leu Gly Lys Phe Ala Glu Val Glu His Val Val Asn Ala Ile Leu Phe Leu Leu Ser Asp Arg Ser Gly Met Thr Thr Gly Ser Thr Leu Pro 230 235 Val Glu Gly Gly Phe Trp Ala Cys 245 <210> 736 <211> 216 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <400> 736 Arg Leu Leu Phe Arg Val Arg Lys Arg Met Ile Ser Phe Ser Ala Pro 5 Pro Leu Met Leu Pro Phe Ser Phe Tyr Phe Phe Val Phe Pro Val Ala . 25 Arg Thr Ala Arg Lys Arg Lys Pro Ser Pro Glu Pro Glu Gly Glu Val

Gly Pro Pro Lys Ile Asn Gly Glu Ala Gln Pro Trp Xaa Ser Thr Ser

721

50 55 60 Thr Glu Gly Xaa Lys Ile Pro Met Thr Pro Thr Ser Ser Phe Val Ser Pro Pro Pro Pro Thr Ala Ser Pro His Ser Asn Arg Thr Thr Pro Pro 90 Glu Ala Ala Gln Asn Gly Gln Ser Pro Met Ala Ala Leu Ile Leu Val 105 Ala Asp Asn Ala Gly Gly Ser His Ala Ser Lys Asp Ala Asn Gln Val 120 His Ser Thr Thr Arg Arg Asn Ser Asn Ser Pro Pro Ser Pro Ser Ser Met Asn Gln Arg Arg Leu Gly Pro Arg Glu Val Gly Gly Gln Gly Ala 150 Gly Asn Thr Gly Gly Leu Glu Pro Val His Pro Ala Ser Leu Pro Asp 165 170 Phe Ser Leu Ala Thr Ser Ala Pro Leu Cys Cys Thr Leu Cys His Glu 185 Arg Leu Glu Asp Asn His Phe Val Gln Cys Arg Pro Ser Phe Asp Lys Phe Ser Ser Leu Leu Arg Gln Arg 210 215 <210> 737 <211> 317 <212> PRT <213> Homo sapiens <400> 737 Arg Pro Thr Arg Pro Glu Val Met Met Thr Lys Tyr Ser Asn Leu Ser Leu Glu Ser His Asn Phe Ser Leu Thr Ala Ser Pro Leu Thr Ser Leu 20 25

Pro Ile Pro Glu Val Met Met Thr Lys Tyr Ser Asn Leu Phe Leu Glu 35 40

Ser His Asn Ile Ser Leu Thr Glu His Ser Ser Val Pro Val Glu Lys

65					70					75			0,0	02	80
Thr	Thr	Ser	Gly	Asp 85	Val	Asn	Ser	Val	Asn 90	Val	Thr	Trp	Lys	Lys 95	Gly
Asp	Glu	Gln	Leu 100	Lys	Asn	Tyr	His	Val 105	Ser	Ala	Thr	Glu	Gly 110	Ile	Leu
Tyr	Thr	Gln 115	Tyr	Lys	Phe	Ser	1le 120	Ile	Asn	Ser	Glu	Gln 125	Leu	Gly	Ser
Tyr	Ser 130	Cys	Phe	Phe	Glu	Glu 135	Glu	Lys	Glu	Arg	Arg 140	Gly	Thr	Phe	Asr
Phe 145	Gly	Val	Pro	Glu	Val 150	Gln	Arg	Lys	Asn	Lys 155	Pro	Leu	Ile	Thr	Туг 160
Val	Gly	Asp	Ser	Val 165	Val	Leu	Val	Cys	Lys 170	Cys	Arg	His	Cys	Ala 175	Pro
		_	180	Trp	-		_	185					190		
		195		Asn			200					205			
Glu	Thr 210	Arg	Leu	Lys	Ile	Met 215	Gln	Leu	Ser	Glu	Asp 220	Asp	Lys	Gly	Ser
225	_	_		Ala	230				-	235					240
				11e 245					250					255	
			260	Val				265					270	-	
		275		Lys			280					285			
	290			Gln		295		-			300	_	Ile	Glu	Asn
Asn	Ala	Pro	Arg	His	Arg	Lys	Asn	Glu	Ala	Met	Ser	Gln			

<210> 738 <211> 67 <212> PRT <213> Homo sapiens <400> 738 Ala Arg Val Ala Ser Asp Pro Phe Phe Arg His Tyr Arg Gln Leu Asn Glu Lys Leu Val Gln Leu Ile Glu Asp Tyr Ser Leu Val Ser Phe Ile 20 25 Pro Leu Asn Ile Gln Asp Lys Glu Ser Ile Gln Arg Val Leu Gln Ala 40 Val Asp Lys Ala Asn Gly Tyr Cys Phe Gly Ala Gln Glu Gln Arg Thr 55 Trp Lys Pro 65 <210> 739 <211> 142 <212> PRT <213> Homo sapiens <400> 739 Ser Gln Gln Pro Arg Ile Met Ser Lys Leu Gly Arg Ala Ala Arg Gly Leu Arg Lys Pro Glu Val Gly Gly Val Ile Arg Ala Ile Val Arg Ala 25 Gly Leu Ala Met Pro Gly Pro Pro Leu Gly Pro Val Leu Gly Gln Arg Gly Val Ser Ile Asn Gln Phe Cys Lys Glu Phe Asn Glu Arg Thr Lys 55 Asp Ile Lys Glu Gly Ile Pro Leu Pro Thr Lys Ile Leu Val Lys Pro 70 65 Asp Arg Thr Phe Glu Ile Lys Ile Gly Gln Pro Thr Val Ser Tyr Phe

Leu Lys Ala Ala Ala Gly Ile Glu Lys Gly Ala Arg Gln Thr Gly Lys

Glu Val Ala Gly Leu Val Thr Leu Lys His Val Tyr Glu Ile Ala Arg

724

115 120 125

Ile Lys Ala Gln Asp Glu Ala Phe Ala Cys Arg Met Tyr Pro 130 135 140

<210> 740

<211> 485

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 740

Trp Pro Ala Val Ala Val Arg Phe Thr Ala Leu Xaa Leu Gly Phe Gly
1 5 10 15

Asp Ala Val His Val Tyr Asp Gly Pro Gly Pro Pro Glu Ser Ser Arg
20 25 30

Leu Leu Arg Ser Leu Thr His Phe Ser Asn Gly Lys Ala Val Thr Val 35 40 45

Glu Thr Leu Ser Gly Gln Ala Val Val Ser Tyr His Thr Val Ala Trp
50 60

Ser Asn Gly Arg Gly Phe Asn Ala Thr Tyr His Val Arg Gly Tyr Cys 65 70 75 80

Leu Pro Trp Asp Arg Pro Cys Gly Leu Gly Ser Gly Leu Gly Ala Gly
85 90 95

Glu Gly Leu Gly Glu Arg Cys Tyr Ser Glu Ala Gln Arg Cys Asp Gly
100 105 110

Ser Trp Asp Cys Ala Asp Gly Thr Asp Glu Glu Asp Cys Pro Gly Cys 115 120 . 125

Pro Pro Gly His Phe Pro Cys Gly Ala Ala Gly Thr Ser Gly Ala Thr 130 135 140

Ala Cys Tyr Leu Pro Ala Asp Arg Cys Asn Tyr Gln Thr Phe Cys Ala 145 150 155 160

Asp Gly Ala Asp Glu Arg Arg Cys Arg His Cys Gln Pro Gly Asn Phe 165 170 175

Arg	Cys	Arg	Asp 180	Glu	Lys	Cys	Val	Туг 185	Glu	Thr	Trp	Val	Cys 190	Asp	Gly
Gln	Pro	Asp 195	Cys	Ala	Asp	Gly	Ser 200	Asp	Glu	Trp	Asp	Cys 205	Ser	Tyr	Val
Leu	Pro 210	Arg	Lys	Val	Ile	Thr 215	Ala	Ala	Val	Ile	Gly 220	Ser	Leu	Val	Суз
Gly 225	Leu	Leu	Leu	Val	11e 230	Ala	Leu	Gly	Cys	Thr 235	Cys	Lys	Leu	Tyr	Ala 240
Ile	Arg	Thr	Gln	Glu 245	Tyr	Ser	Ile	Phe	Ala 250	Pro	Leu	Ser	Arg	Met 255	Glu
	Glu		260					265			-	_	270		
	Gln	275					280		_			285			
	Asp 290					295					300				
305	Gln				310					315					320
	Gly			325					330					335	
	Leu		340					345					350		
	Val	355					360					365			
	370					375					380				
385	Pro				390					395					400
	Ala			405					410	•				415	
	Leu		420					425					430		
Arg	Leu	Leu 435	Pro	Ser	Leu	GIY	Pro 440	Pro	Gly	Pro	Thr	Arg 445	Ser	Pro	Pro

726

Gly Pro His Thr Ala Val Leu Ala Leu Glu Asp Glu Asp Asp Val Leu

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455
Leu Val Pro Leu Ala Glu Pro Gly Val Trp Val Ala Glu Ala Glu Asp
                    470
                                       475
Glu Pro Leu Leu Thr
                485
<210> 741
<211> 313
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (276)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Gly Ala Arg Gly Xaa Xaa Arg Xaa Val Ala Ser Phe Gln Gln Gln
His Gly Ala Gln Arg Asp Leu Lys Leu Gly Ser Arg Leu Tyr Gly Pro
Ser Ser Val Xaa Phe Ala Glu Asp Phe Val Arg Ser Ser Lys Gln His
         35
                            40
```

1	ryr	50	cys	GIU	HIS	ser	ьуs 55	ıre	Asn	Pne	Arg	60	Lys	Arg	ser	АТА
I	eu 65	Gln	Ser	Ile	Asn	Glu 70	Trp	Ala	Ala	Gln	Thr 75	Thr	Asp	Gly	Lys	Leu 80
F	, ro	Glu	Val	Thr	Lys 85	Asp	Val	Glu	Arg	Thr 90	Asp	Gly	Ala	Leu	Leu 95	Val
P	sn	Ala	Met	Phe 100	Phe	Lys	Pro	His	Trp 105	Asp	Glu	Lys	Phe	His 110	His	Lys
M	let	Val	Asp 115	Asn	Arg	Gly	Phe	Met 120	Val	Thr	Arg	Ser	Туг 125	Thr	Val	Gly
V	al	Thr 130	Met	Met	His	Arg	Thr 135	Gly	Leu	Туг	Asn	Туг 140	Tyr	Asp	Asp	Glu
	ys 45	Glu	Lys	Leu	Gln	Met 150	Val	Glu	Met	Pro	Leu 155	Ala	His	Lys	Leu	Ser 160
S	er	Leu	Leu	Ile	Leu 165	Met	Pro	His	His	Val 170	Glu	Pro	Leu	Glu	Arg 175	Leu
G	lu	Lys	Leu	Leu 180	Thr	Lys	Glu	Gln	Leu 185	Lys	Ile	Trp	Met	Gly 190	Lys	Met
G	ln	Lys	Lys 195	Ala	Val	Ala	Ile	Ser 200	Leu	Pro	Lys	Gly	Val 205	Val	Glu	Val
Т	hr	His 210	Asp	Leu	Gln	Lys	His 215	Leu	Ala	Gly	Leu	Gly 220	Leu	Thr	Glu	Ala
	le 25	Asp	Lys	Asn	Lys	Ala 230	Asp	Leu	Ser	Arg	Met 235	Ser	Gly	Lys	Lys	Asp 240
L	eu	Tyr	Leu	Ala	Ser 245	Val	Phe	His	Ala	Thr 250	Ala	Phe	Glu	Trp	Asp 255	Thr
G	lu	Gly	Asn	Pro 260	Phe	Asp	Gln	Asp	11e 265	Tyr	Gly	Arg	Glu	Glu 270	Leu	Arg
S	er	Pro	Lys 275	Xaa	Phe	Tyr	Ala	Asp 280	His	Pro	Phe	Ile	Phe 285	Leu	Val	Arg
A	sp	Thr 290	Gln	Thr	Gly	Ser	Leu 295	Leu	Phe	Ile	Gly	Arg 300	Leu	Val	Arg	Pro
	ys 05	Gly	Asp	Lys	Met	Arg 310	Asp	Glu	Leu							

<210> 742 <211> 60

<212> PRT

<213> Homo sapiens

<400> 742

Arg Asn Ile Lys Trp Glu Lys Ala Tyr Lys Ala Phe Arg Ile Leu Ser

Val Ser Ser Phe Leu Val Phe Arg Cys Tyr Val Ile Lys His Ile Phe 25

Phe Gly Phe Pro Arg Tyr Thr Ile Tyr Leu Phe Lys Gly Lys Ser Ile 40

Lys Cys Ile Tyr Phe Ile Leu Trp Phe Cys Tyr Leu 55

<210> 743

<211> 204

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

Pro Arg Gly Xaa Ser Gln Val Cys Pro Cys Ser Trp Asn Pro Gly Val 10

Pro Glu Ala Lys Ala Pro Pro Arg Gly Ser Arg Glu Asp Leu Val Ala 25

Glu Glu Ser Pro Glu Leu Leu Asn Pro Glu Pro Arg Arg Leu Ser Pro 45 35 40

Glu Leu Arg Leu Leu Pro Tyr Met Ile Thr Leu Gly Asp Ala Val His

Asn Phe Ala Asp Gly Leu Ala Val Gly Ala Ala Phe Ala Ser Ser Trp 75

Lys Thr Gly Leu Ala Thr Ser Leu Ala Val Phe Cys His Glu Leu Pro

729

His Glu Leu Gly Asp Phe Ala Ala Leu Leu His Ala Gly Leu Ser Val 100 105 110

Arg Gln Ala Leu Leu Leu Asn Leu Ala Ser Ala Leu Thr Ala Phe Ala 115 120 125

Gly Leu Tyr Val Ala Leu Ala Val Gly Val Ser Glu Glu Ser Glu Ala \cdot 135 140

Trp Ile Leu Ala Val Ala Thr Gly Leu Phe Leu Tyr Val Ala Leu Cys 145 150 155 160

Asp Met Leu Pro Ala Met Leu Lys Val Arg Asp Pro Arg Pro Trp Leu 165 170 175

Leu Phe Leu Leu His Asn Val Gly Leu Leu Gly Gly Trp Thr Val Leu 180 185 190

Leu Leu Ser Leu Tyr Glu Asp Asp Ile Thr Phe 195 200

<210> 744

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 744

Ile Thr Lys Gly Lys Xaa Val Ala Cys Ser Thr Gly Pro Glu Phe Pro 1 5 10 15

Gly Arg Pro Thr Arg Pro Thr Thr Glu Gly Tyr Gly Cys Glu Lys Thr
20 25 30

Thr Glu Gly Tyr Gly Cys Glu Lys Thr Thr Glu Gly Tyr Gly Cys Glu 35 40 45

Lys Thr Thr Glu Gly Tyr Gly Cys Glu Lys Thr Thr Glu Gly Tyr Gly 50 60

Cys Glu Lys Thr Thr Glu Gly Thr Ala Ala Arg Arg Arg Gln Arg Val 65 70 75 80

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Ser	Val	Leu	Phe 20	Ser	Leu	Ile	Leu	Gln 25	Arg	Gln	Asp	Pro	Ala 30	Pro	Ala
Leu	Ser	Thr 35	Ala	Thr	Met	Gly	Lys 40	Gly	Val	Gly	Arg	Asp 45	Lys	Tyr	Gli
Pro	Ala 50	Ala	Val	Ser	Glu	Gln 55	Gly	Asp	Lys	Lys	Gly 60	Lys	Lys	Gly	Ly
Lys 65	Asp	Arg	Asp	Met	Asp 70	Glu	Leu	Lys	Lys	Glu 75	Val	Ser	Met	Asp	Ası 80
His	Lys	Leu	Ser	Leu 85	Asp	Glu	Leu	His	Arg 90	Lys	Tyr	Gly	Thr	Asp 95	Le
Ser	Arg	Gly	Leu 100	Thr	Ser	Ala	Arg	Ala 105	Ala	Glu	Ile	Leu	Ala 110	Arg	Ası
Gly	Pro	Asn 115	Ala	Leu	Thr	Pro	Pro 120	Pro	Thr	Thr	Pro	Glu 125	Trp	Ile	Ly
Phe	Cys 130	Arg	Gln	Leu	Phe	Gly 135	Gly	Phe	Ser	Met	Leu 140	Leu	Trp	Ile	Gly
Ala 145	Ile	Leu	Cys	Phe	Leu 150	Ala	Tyr	Ser	Ile	Gln 155	Ala	Ala	Thr	Glu	Gl:
Glu	Pro	Gln	Asn	Asp 165	Asn	Leu	туr	Leu	Gly 170	Val	Val	Leu	Ser	Ala 175	Vа:
Val	Ile	Ile	Thr 180	Gly	Cys	Phe	Ser	Туг 185	Tyr	Gln	Glu	Ala	Lys 190	Ser	Sei
Lys	Ile	Met 195	Glu	Ser	Phe	Lys	Asn 200	Met	Val	Pro	Gln	Gln 205	Ala	Leu	Val
Ile	Arg 210	Asn	Gly	Glu	Lys	Met 215	Ser	Ile	Asn	Ala	Glu 220	Glu	Val	Val	Va]

225	ASP	Leu	vai	GIU	230	цуs	Gly	GIY	waħ	235	116	PIO	MIG	изр	240
Arg	Ile	Ile	Ser	Ala 245	Asn	Gly	Cys	Lys	Val 250	Asp	Asn	Ser	Ser	Leu 255	Thr
Gly	Glu	Ser	Glu 260	Pro	Gln	Thr	Arg	Ser 265	Pro	Asp	Phe	Thr	Asn 270	Glu	Asn
Pro	Leu	Glu 275	Thr	Arg	Asn	Ile	Ala 280	Phe	Phe	Ser	Thr	Asn 285	Суѕ	Val	Glu
Gly	Thr 290	Ala	Arg	Gly	Ile	Val 295	Val	Tyr	Thr	Gly	Asp 300	Arg	Thr	Val	Met
Gly 305	Arg	Ile	Ala	Thr	Leu 310	Ala	Ser	Gly	Leu	Glu 315	Gly	Gly	Gln	Thr	Pro 320
Ile	Ala	Ala	Glu	Ile 325	Glu	His	Phe	Ile	His 330	Ile	Ile	Thr	Gly	Val 335	Ala
Val	Phe	Leu	Gly 340	Val	Ser	Phe	Phe	11e 345	Leu	Ser	Leu	Ile	Leu 350	Glu	Tyr
		355			Val		360					365			
	370		-		Leu	375					380				
385					Arg 390					395					400
				405	Ser				410	_		_		415	
			420		Arg			425					430		
		435			Asp		440					445			
	450				Thr	455					460				
465					Phe 470					475					480
Lys	Arg	Ala	Val	Ala 485	Gly	Asp	Ala	Ser	Glu 490	Ser	Ala	Leu	Leu	Lys 495	Cys

Ile	Glu	Leu	Суз 500	Cys	Gly	Ser	Val	Lys 505	Glu	Met	Arg	Glu	Arg 510	Tyr	Ala
Lys	Ile	Val 515	Glu	Ile	Pro	Phe	Asn 520	Ser	Thr	Asn	Lys	Туг 525	Gln	Leu	Ser
Ile	His 530	Lys	Asn	Pro	Asn	Thr 535	Ser	Glu	Pro	Gln	His 540	Leu	Leu	Val	Met
Lys 545	Gly	Ala	Pro	Glu	Arg 550	Ile	Leu	Asp	Arg	Cys 555	Ser	Ser	Ile	Leu	Leu 560
His	Gly	Lys	Glu	Gln 565	Pro	Leu	Asp	Glu	Glu 570	Leu	Lys	Asp	Ala	Phe 575	Gln
Asn	Ala	Tyr	Leu 580	Glu	Leu	Gly	Gly	Leu 585	Gly	Glu	Arg	Val	Leu 590	Gly	Phe
Cys	His	Leu 595	Phe	Leu	Pro	Asp	Glu 600	Gln	Phe	Pro	Glu	Gly 605	Phe	Gln	Phe
Asp	Thr 610	Asp	Asp	Val	Asn	Phe 615	Pro	Ile	Asp	Asn	Leu 620	Cys	Phe	Val	Gly
Leu 625	Ile	Ser	Met	Ile	Asp 630	Pro	Pro	Arg	Ala	Ala 635	Val	Pro	Asp	Ala	Val 640
Gly	Lys	Cys	Arg	Ser 645	Ala	Gly	Ile	Lys	Val 650	Ile	Met	Val	Thr	Gly 655	Asp
His	Pro	Ile	Thr 660	Ala	Lys	Ala	Ile	Ala 665	Lys	Gly	Val	Gly	Ile 670	Ile	Ser
Glu	Gly	Asn 675	Glu	Thr	Val	Glu	Asp 680	Ile	Ala	Ala	Arg	Leu 685	Asn	Ile	Pro
Val	Ser 690	Gln	Val	Asn	Pro	Arg 695	Asp	Ala	Lys	Ala	Cys 700	Val	Val	His	Gly
Ser 705	Asp	Leu	Lys	Asp	Met 710	Thr	Ser	Glu	Gln	Leu 715	Asp	Asp	Ile	Leu	Lys 720
Tyr	His	Thr	Glu	Ile 725	Val	Phe	Ala	Lys	Thr 730	Ser	Pro	Gln	Gln	Lys 735	Leu
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733

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Ser Leu Arg Ser Ala Trp Ala Thr Trp
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Xaa Xaa Leu Gly Gly Arg Val Cys Ser Glu Pro Arg Trp Arg His Cys
Thr Pro Ala Trp Gly Thr Glu Arg Asp Ser Ile Ser Lys Lys Lys
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             20
Lys Lys Ile Lys Asn
        35
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Ile Lys Ala Val Cys Gln Ser Val Arg Glu Ala Thr Thr Ala Ser Gly
             20
                                25
Gly Met Asn Ala Ala Ser Pro Arg Leu Xaa Arg His Arg Xaa Asn Gly
                             40
Xaa Tyr Phe Thr Leu Arg Glu Arg Leu Ile Thr Met Gln Lys Gln Leu
Gly Gly Asn Pro Glu Val Tyr
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<210> 749
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736

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Ser Leu Pro Phe Ala Ile Leu Thr Leu Val Asn Ala Pro Tyr Lys Arg

25

30

45

Gly Phe Tyr Cys Gly Asp Asp Ser Ile Arg Tyr Pro Tyr Arg Pro Asp

Thr Ile Thr His Gly Leu Met Ala Gly Val Thr Ile Thr Ala Thr Val

40

```
55
Ile Leu Val Ser Ala Gly Glu Ala Tyr Leu Val Tyr Thr Asp Arg Leu
                                         75
                     70
Tyr Ser Arg Ser Asp Phe Asn Asn Tyr Val Ala Ala Val Tyr Lys Val
Leu Gly Thr Ser Cys Leu Gly Leu Pro
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738

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Tyr Thr Leu Arg Lys Gln Met Asn Xaa Asn Leu Phe Ser Ser Phe Ile
             20
                                 25
Thr Pro Thr Ile Ile Gly Leu Pro Ile Val Ile Ile Xaa Thr Met Phe
                             40
Pro Ser Ile Asp Xaa Pro Ile Thr Tyr Pro Xaa Xaa Gln
                         55
<210> 752
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Ser Asp Pro Glu Ala Glu Val Glu Glu Ser Ser Ser Gly Leu Arg Leu
Ser Leu Ile Lys Met Thr Thr Ser Gln Lys His Arg Asp Phe Val Ala
Xaa Pro Met Gly Glu Asn Gln Trp Gly Thr Trp Leu Gly Leu Val Xaa
                             40
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<400> 753

Ser Trp Ala Arg Asn Trp Lys Lys Gly Phe

55

739

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Thr Leu His Ser Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Thr

1 5 10 15

Ala Ala Leu Glu Leu Val Gly Gly Pro Val Pro Asn Ser Pro Tyr Ser

20 25 30

<223> Xaa equals any of the naturally occurring L-amino acids

Glu Ser Tyr Tyr Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Xaa 35 40 45

Glu Asn Xaa Xaa Yaa Phe Arg Leu Val Cys Cys Val Glu Leu Xaa Ala

740

50 55 60 Asp Asn Asn Ser His Arg Xaa Gln Leu 65 70 <210> 754 <211> 116 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (43) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (62) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (67) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (81) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<223> Xaa equals any of the naturally occurring L-amino acids

<221> SITE <222> (87)

741

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Met Gly Ser Asp Tyr Ile Arg Glu Val Asn Val Val Lys Ser Ala Arg
                                     10
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Xaa Gly Tyr Ser Lys Met Leu Leu Gly Val Tyr Ala Tyr Phe Ile Glu

742

20 25 30 His Lys Gln Arg Asn Thr Leu Ile Trp Leu Xaa Thr Asp Gly Asp Ala . 40 Arg Glu Leu Tyr Glu Lys Pro Thr Leu Ser Pro Thr Ile Xaa Asp Ile Pro Ser Xaa Xaa Gly Ala Gly Pro Val Val Trp Gln Lys Ser Thr Gly Xaa Asn Lys Xaa Asn His Xaa Xaa Val Ser Xaa Xaa Trp Gly Gly Pro 85 Arg Asn Pro Ile Xaa Pro Ile Ser Xaa Trp Xaa Phe Xaa Asn Ser Xaa 105 Gly Pro Xaa Phe 115 <210> 755 <211> 148 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (120) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (135) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (146) <223> Xaa equals any of the naturally occurring L-amino acids Ile Arg Gln Xaa Ile Asp Ile Arg Lys Asp Leu Tyr Ala Asn Asn Val 10 Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln 25 Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu Ala Gln Ile Leu Cys Leu Asp Arg Trp Leu His Pro Gly Leu Ser Val His Leu Pro Ala Asp Val Asp Gln Gln Thr Gly Asn 75 Thr Val Lys Pro Gly Leu Pro Leu Ser Thr Ala Asn Ala Phe Leu Lys 85 90 His Phe Ser Trp Phe Leu Phe Cys Leu Leu Gly Thr Gln Leu Trp Asn Val Pro Val Gly Ile Tyr Gly Xaa Phe Ser Phe Phe Phe Gln Ile Ile 120 Pro Arg Ala Lys Val Leu Xaa Trp Xaa Xaa His Gly Val Phe Leu Asn 130 135 140 Lys Xaa Trp Lys 145 <210> 756 <211> 151 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (147) <223> Xaa equals any of the naturally occurring L-amino acids

Ala Glu Leu Ala Thr Thr Ser Thr Met Pro Tyr Gln Tyr Pro Ala Leu

<400> 756

744

10 1 15 Thr Pro Glu Gln Lys Lys Glu Leu Ser Asp Ile Ala His Arg Ile Val 20 25 Ala Pro Gly Lys Gly Ile Leu Ala Ala Asp Glu Ser Thr Gly Ser Ile Ala Lys Arg Leu Gln Ser Ile Gly Thr Glu Asn Thr Glu Glu Asn Arg 55 . 60 Arg Phe Tyr Arg Gln Leu Leu Thr Ala Asp Asp Arg Val Asn Pro Cys Ile Gly Gly Val Ile Leu Phe His Glu Thr Leu Tyr Gln Lys Ala Asp Asp Gly Arg Pro Phe Pro Gln Val Ile Lys Ser Lys Gly Gly Val 100 105 110 Val Gly Ile Lys Val Asp Lys Gly Val Val Pro Leu Ala Gly Thr Asn 120 Gly Glu Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu Arg Cys Ala Gln Tyr Xaa Glu Gly Arg Ser 145 150 <210> 757 <211> 94 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (21) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (44) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (91) <223> Xaa equals any of the naturally occurring L-amino acids <400> 757 Phe Val Thr Ile Leu Ser Ile Ile Ile Thr Leu Phe Phe Ile Phe Gln 10 Leu Lys Val Ser Xaa Tyr Ser Phe Pro Glu Asn Pro Glu Pro Lys Ser Leu Thr Thr Ser Lys Ser Thr Thr Pro Trp Arg Xaa Gln Met Asn Xaa Asn Leu Phe Ser Ser Phe Ile Thr Pro Thr Ile Ile Gly Leu Pro Ile 50 55 60 Val Ile Ile Ile Thr Met Phe Pro Ser Ile Ile Phe Pro Ser Pro Thr 75 Arg Leu Ile Asn Asn Arg Leu Ile Ser Ile Xaa Thr Met Asp <210> 758 <211> 115 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids

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Arg Xaa Ala Leu Xaa Arg Leu Thr Ile Gly Xaa Ser Trp Tyr Ala Cys
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Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Xaa Arg Arg
             20
Gly Gln Leu Arg Ala Arg Gly Gly Gly Ala Xaa Pro Arg Gly Ala Met
Xaa Asp Xaa Arg Ala Gly Ser Pro Arg Xaa Gly Pro Ala Ala Arg Asp
     50
Val Ala Ala Met Ala Ser Pro Gln Leu Cys Arg Ala Leu Val Ser Ala
65
                     70
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Gln Trp Val Ala Glu Ala Leu Arg Ala Pro Arg Ala Gly Ala Ala Ser 85 \hspace{1cm} 90 \hspace{1cm} 95
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Ala Ala Xaa Arg Thr Pro Pro Gly Xaa Leu Ala Gly Ser Trp Gly Ala 100 105 110

Arg Thr Xaa 115

<210> 759

<211> 44

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 759

Ile Ala Xaa Gly Arg Ser Arg Gly Ser Lys Leu Thr Trp Thr Cys Met

1 5 10 15

Xaa Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Xaa Xaa Lys 35 40

<210> 760

<211> 94

<212> PRT

<213> Homo sapiens

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Gly Met Thr Val Arg Glu Leu Cys Ser Ala Ala Ile Thr Met Ser Asp
Asn Thr Ala Ala Asn Leu Leu Thr Thr Ile Gly Gly Pro Lys Glu
                             40
Leu Thr Ala Phe Leu His Asn Met Gly Asp His Val Thr Arg Leu Asp
Arg Trp Glu Pro Glu Leu Asn Glu Ala Ile Pro Asn Asp Glu Arg Xaa
Thr Thr Met Pro Val Ala Met Ala Thr Thr Xaa Ala Asn Tyr
                 85
<210> 761
<211> 38
<212> PRT
<213> Homo sapiens
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PCT/US00/05881 WO 00/55173

749

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 761

Leu Gln Glu Ile Asn Arg Val Tyr Xaa Glu Met Tyr Lys Thr Asp Leu

Glu Lys Asp Ile Xaa Ser Asp Xaa Ser Gly Asp Phe Arg Lys Leu Met 25

Val Ala Leu Ala Lys Gly 35

<210> 762

<211> 192

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 762

Cys Lys Xaa Xaa Leu Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu

Phe Gly Thr Ser Cys Val Gly Leu Arg Glu Ala Val Arg Ala Gly Ala

Val Gly Arg Gly Ala Glu Ala Leu Ala Arg Gly Met Ala His Cys Val 50

Thr Leu Val Gln Leu Ser Ile Ser Cys Asp His Leu Ile Asp Lys Asp

Ile Gly Ser Lys Ser Asp Pro Leu Cys Val Leu Leu Gln Asp Val Gly 90

Gly Gly Ser Trp Ala Glu Leu Gly Arg Thr Glu Arg Val Arg Asn Cys 100 105

750

Ser Ser Pro Glu Phe Ser Lys Thr Leu Gln Leu Glu Tyr Arg Phe Glu 115 120 125

Thr Val Gln Lys Leu Arg Phe Gly Ile Tyr Asp Ile Asp Asn Lys Thr 130 135 140

Pro Glu Leu Arg Asp Asp Asp Phe Leu Gly Gly Ala Glu Cys Ser Leu 145 150 155 160

Gly Gln Ile Val Ser Ser Gln Val Leu Thr Leu Pro Leu Met Leu Lys 165 170 175

Leu Glu Asn Leu Leu Gly Gly Gly Pro Ser Arg Ser Gln Leu Arg Asn 180 185 190

<210> 763

<211> 103

<212> PRT

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<400> 763

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1 5 10 15

Asn Gln Lys Ala Trp Lys Ile Lys Tyr Tyr Lys Gly Leu Gly Thr Ser 20 25 30

Thr Ala Lys Glu Ala Lys Glu Tyr Phe Ala Asp Met Glu Arg His Arg
35 40 45

Ile Leu Phe Arg Tyr Ala Gly Pro Glu Asp Asp Ala Ala Ile Thr Leu 50 55 60

Ala Phe Ser Lys Lys Lys Ile Asp Asp Arg Lys Glu Trp Leu Thr Asn 65 70 75 80

Phe Met Glu Asp Arg Gln Arg Ser Tyr Met Ala Tyr Gln Arg Xaa 85 90 95

Asp Ser Leu Ser Thr Gln Thr 100

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<210> 764
<211> 105
<212> PRT
<213> Homo sapiens
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Val Phe Ser Pro Thr Gly Ser Asp Gly Pro Leu Ala Thr Ser Lys Pro
Val Pro Ala Glu Lys Ser Gly Leu Pro Val Gly Pro Glu Asn Gly Val
                                 25
Glu Leu Ser Lys Glu Glu Leu Ile Arg Arg Lys Arg Glu Glu Phe Ile
Gln Lys His Gly Arg Gly Met Glu Lys Ser Asn Lys Ser Thr Lys Ser
Asp Ala Pro Lys Glu Lys Gly Lys Lys Ala Pro Arg Val Trp Glu Leu
65
                    70
Gly Gly Cys Ala Asn Lys Glu Met Leu Asp Tyr Ser Thr Ser Thr Thr
                                    90
Asn Gly Thr Pro Xaa Ala Cys Leu Val
<210> 765
<211> 147
<212> PRT
<213> Homo sapiens
Gly Arg Glu Thr Met Phe Arg Ala Ala Pro Gly Gln Leu Arg Arg
Ala Ala Ser Leu Leu Arg Phe Gln Ser Thr Leu Val Ile Ala Glu His
                                 25
Ala Asn Asp Ser Leu Ala Pro Ile Thr Leu Asn Thr Ile Thr Ala Ala
                             40
```

752

Thr Arg Leu Gly Gly Glu Val Ser Cys Leu Val Ala Gly Thr Lys Cys 50 55 60

Asp Lys Val Ala Gln Asp Leu Cys Lys Val Ala Gly Ile Ala Lys Val

Leu Val Ala Gln His Asp Val Tyr Lys Gly Leu Leu Pro Glu Glu Leu

70

Thr Pro Leu Ile Leu Ala Thr Gln Lys Gln Phe Asn Tyr Thr His Ile 100 105 110

Cys Ala Gly Ala Ser Ala Phe Gly Lys Asn Leu Leu Pro Arg Val Ala 115 120 125

Ala Lys Leu Glu Val Ala Pro Ile Ser Asp Ile Ile Ala Ile Lys Ser 130 135 140

Pro Asp Thr 145

65

<210> 766

<211> 36

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 766

Gly Arg Glu Ala Glu Ala Xaa Gln Leu Glu Ser Ser Lys Arg Phe Ala 1 5 10 15

Lys Xaa Phe Met Asp Arg His Gly Ile Pro Thr Ala Gln Trp Glu Gly
20 25 30

Phe His Gln Thr

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<210> 767
 <211> 105
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<400> 767
Arg Phe Ala Leu Ser Thr Lys Ile Pro Asp Thr Lys Gly Cys Leu Gln
Cys Arg Val Val Arg Asn Pro Tyr Thr Gly Ala Thr Phe Leu Leu Ala
             20
Ala Leu Pro Thr Ser Leu Leu Leu Gln Trp Tyr Glu Pro Leu Gln
Lys Phe Leu Leu Lys Asn Phe Ser Ser Pro Leu Pro Xaa Pro Ala
     50
                         55
Gly Met Leu Xaa Pro Leu Val Leu Asp Gly Lys Glu Leu Pro Gln Xaa
                     70
                                         75
```

Phe Phe Gly Ala Glu Gly Pro Lys Gly Pro Gly Cys Arg Phe Leu Phe 85 90 95

Gln Xaa Leu Xaa Leu Gly Gly Trp Xaa 100 105

<210> 768

<211> 154

<212> PRT

<213> Homo sapiens

<400> 768

Val Thr Leu Thr Gln Cys Ser Glu Lys Leu Val Gln Leu Ile Leu His
1 5 10 15

Glu Tyr Lys Ile Phe Asn Ala Glu Val Leu Phe Arg Glu Asp Cys Ser 20 25 30

Pro Asp Glu Phe Ile Asp Val Ile Val Gly Asn Arg Val Tyr Met Pro 35 40 45

Cys Leu Tyr Val Tyr Asn Lys Ile Asp Gln Ile Ser Met Glu Glu Val 50 60

Asp Arg Leu Ala Arg Lys Pro Asn Ser Val Val Ile Ser Cys Gly Met 65 70 75 80

Lys Leu Asn Leu Asp Tyr Leu Leu Glu Met Leu Trp Glu Tyr Leu Ala $85 \hspace{1cm} 90 \hspace{1cm} 95$

Leu Thr Cys Ile Tyr Thr Lys Lys Arg Gly Gln Arg Pro Asp Phe Thr 100 105 110

Asp Ala Ile Ile Leu Arg Lys Gly Ala Ser Val Glu His Val Gly Thr 115 120 125

Ser Thr Lys Tyr Ser Pro Gln Arg Val Gly Leu Thr His Thr Met Glu 130 135 140

His Glu Asp Val Ile Gln Ile Val Lys Lys 145 150

<210> 769

<211> 89

<212> PRT

<213> Homo sapiens

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Asn Gln Ala Gly Leu Thr Ala Asp Arg Met Leu Val Leu Ser Arg Ala
                                      10
Gly Gln Ala Ala Gly Leu Thr Phe Asn Gln Thr Ser Glu Ser Leu Ser
                                  25
Ala Leu Val Lys Ala Gly Val Ser Gly Glu Ala Gln Ile Ala Ser Ile
Ser Gln Ser Val Ala Arg Phe Xaa Ser Ala Ser Gly Val Glu Val Asp
Lys Val Val Glu Ala Phe Glu Gly Gly Pro Tyr Pro Phe Ala Tyr Ser
                                         75
Lys Arg Ile Xaa Ile Ile Ala Val Phe
                 85
<210> 770
<211> 85
<212> PRT
<213> Homo sapiens
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<222> (83)
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<223> Xaa equals any of the naturally occurring L-amino acids

756

<220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <400> 770 Gln Thr Ser Arg Ala Glu Ser Ala Ser Met Thr Glu Arg Arg Val Pro Phe Ser Leu Leu Arg Gly Pro Ser Trp Asp Pro Phe Arg Asp Trp Tyr 20 25 Pro His Ser Arg Leu Phe Asp Gln Ala Phe Gly Leu Pro Arg Leu Pro Glu Glu Trp Ser Gln Trp Leu Gly Xaa Ser Ser Trp Pro Gly Tyr Val 55 Arg Pro Leu Pro Pro Ala Ala Ser Arg Ala Pro Gln Trp Pro Xaa Pro Leu Gln Xaa Xaa Ala <210> 771 <211> 76 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (70) <223> Xaa equals any of the naturally occurring L-amino acids <400> 771 Asp Tyr Cys Gln Val Val Arg Pro Ser Pro Ser Gly Glu Thr Ile Thr Tyr Arg Gln Val Val Leu Ser Val Asn Val Lys Ser Pro Ala Leu Leu

20 25 30

Leu Ser Gln Leu Leu Pro Tyr Met Glu Asn Lys Lys Gly Ala Val Xaa 35 40 45

Leu Xaa Ser Ser Ile Ala Ala Tyr Asn Pro Val Val Ala Leu Gly Val 50 60

Tyr Asn Val Ser Lys Xaa Glu Leu Leu Gly Ser His 65 70 75

<210> 772

<211> 105

<212> PRT

<213> Homo sapiens

<220>

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<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 772

Gly Ala Glu Glu Gly Arg Gln Glu Ala Gln Gly Xaa Arg Lys Glu Ser

1 10 15

Tyr Ser Val Tyr Val Tyr Lys Val Leu Lys Gln Val His Pro Asp Thr 20 25 30

Gly Ile Ser Ser Lys Ala Met Gly Ile Met Asn Ser Phe Val Asn Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ile Phe Glu Arg Ile Ala Gly Glu Ala Ser Arg Leu Ala His Tyr Asn 50 55 60

Lys Arg Ser Thr Ile Thr Ser Arg Glu Ile Gln Thr Ala Val Arg Leu 65 70 75 80

Leu Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys 85 90 95

Ala Val Thr Lys Tyr Thr Ser Ala Lys 100 105

<210> 773

<211> 144

<212> PRT

<213> Homo sapiens

PCT/US00/05881

<220> <221> SITE <222> (98) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (132) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (139) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (140) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (141) <223> Xaa equals any of the naturally occurring L-amino acids <400> 773 Phe Ala His Leu Pro Lys Ser Thr Phe Val Leu Asp Glu Phe Lys Arg Lys Tyr Ser Asn Glu Asp Thr Leu Ser Val Ala Leu Pro Tyr Phe Trp 20 25 30 Glu His Phe Asp Lys Asp Gly Trp Ser Leu Trp Tyr Ser Glu Tyr Arg 40 Phe Pro Glu Glu Leu Thr Gln Thr Phe Met Ser Cys Asn Leu Ile Thr 55 Gly Met Phe Gln Arg Leu Asp Lys Leu Arg Lys Asn Ala Phe Ala Ser 65 70 75 Val Ile Leu Phe Gly Thr Asn Asn Ser Ser Ser Ile Ser Gly Val Trp Val Xaa Pro Gly Gln Glu Leu Ala Phe Pro Leu Ser Pro Asp Trp Gln 105 Val Asp Tyr Glu Val Ile His Met Ala Glu Thr Gly Ser Gly Lys Arg 115 120

Gly Asp Pro Xaa Ala Gly Ser Arg Val Leu Xaa Xaa Arg Gly Pro 130 135 140

<210> 774

<211> 64

<212> PRT

<213> Homo sapiens

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 774

Ile Arg His Glu Arg Glu Xaa Glu Gln Gly Val Tyr Thr Cys Thr Ala 1 5 10 15

Gln Gly Ile Trp Lys Asn Glu Gln Lys Gly Glu Lys Ile Pro Arg Cys 20 25 30

Leu Pro Val Cys Gly Lys Pro Val Asn Pro Val Glu Gln Arg Gln Arg 35 40 45

Ile Ile Gly Gly Gln Lys Ala Xaa Gly Ile Val Gly Ala Phe Leu Gln 50 $\,$ 55 $\,$ 60

<210> 775

<211> 69

<212> PRT

<213> Homo sapiens

<400> 775

Asn Ile Ser Asn Ser Gln Val Asn Arg Leu Arg His Phe Val Arg Ala 1 5 10 15

Gly Leu Arg Ser Leu Phe Arg Pro Glu Pro Gln Thr Ala Val Glu Trp

760

20 25 Ala Asp Ala Asn Tyr Tyr Leu Pro Lys Glu Ser Ala Tyr Gln Glu Gly 40 Arg Trp Glu Thr Leu Pro Phe Gln Arg Ala Ile Met Asn Ala Asn Gly 50 Gln Arg Leu His Pro 65 <210> 776 <211> 56 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids Glu Arg Val Phe Xaa Pro His Gly Leu Ile Met Asp Arg Thr Xaa Arg

Leu Phe Leu Leu Lys Gly Gly Tyr Lys Phe Phe Ala Asp Leu Leu Asp

Phe Ala Arg Asn Val Met Lys Glu Met Gly Gly His His Ile Xaa Val 20 25 30

761

35 40 45 Tyr Ile Lys Gly Leu Xaa Xaa Lys <210> 777 <211> 134 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (6) <223> Xaa equals any of the naturally occurring L-amino acids <400> 777 Leu Gln Phe Xaa Xaa Xaa Met Ile Thr Pro Ser Ser Asn Thr Thr His 5 10 Tyr Arg Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Gly Val Phe Glu Val His Lys Lys Asn Val Arg Gly Glu Phe Thr Tyr Tyr Glu Ile Gln Asp Asn Thr Gly Lys Met Glu 50 Val Val Val His Gly Arg Leu Thr Thr Ile Asn Cys Glu Glu Gly Asp Lys Leu Lys Leu Thr Cys Phe Glu Leu Ala Pro Lys Ser Gly Asn Thr 85 90 Gly Glu Leu Arg Ser Val Ile His Ser His Ile Lys Val Ile Lys Thr

105

Arg Lys Asn Lys Lys Asp Ile Leu Asn Pro Asp Ser Ser Met Glu Thr 115 120 125

Ser Pro Asp Phe Phe Phe 130

<210> 778

<211> 133

<212> PRT

<213> Homo sapiens

<400> 778

Thr Ile Thr Ser Gly Gly Asn Pro Pro Ala Phe Ser Leu Thr Pro Asp
1 5 10 15

Gly Lys Leu Thr Ala Lys Asn Ala Asp Ile Ser Gly Ser Val Asn Ala 20 25 30

As Ser Gly Thr Leu Ser As NVal Thr Ile Ala Glu As Cys Thr Ile 35 40 45

Asn Gly Thr Leu Arg Ala Glu Lys Ile Val Gly Asp Ile Val Lys Ala 50 55 60

Ala Ser Ala Ala Phe Pro Arg Gln Val Glu Ser Ser Val Asp Trp Pro 65 70 75 80

Ser Gly Thr Arg Thr Val Thr Val Thr Asp Asp His Pro Phe Asp Arg \$85\$ 90 95

Gln Ile Val Val Leu Pro Leu Thr Phe Arg Gly Ser Lys Arg Thr Val

Ser Gly Arg Thr Thr Tyr Ser Met Cys Tyr Leu Lys Val Leu Met Asn 115 120 125

Gly Ala Val Ile Tyr 130

<210> 779

<211> 90

<212> PRT

<213> Homo sapiens

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<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 779
Pro Asn Thr Ala Leu Val Gly Val Gln Val Asp Ser Glu Gln Phe Gly
Ser Gln Gln Val Ser Arg Asn Tyr His Leu Arg Gly Arg Ile Leu Gln
             20
                                25
Val Pro Ser Asn Tyr Asn Pro Gln Thr Arg Gln Tyr Ser Gly Ile Trp
                             40
Asp Gly Thr Xaa Lys Pro Ala Tyr Ser Asn Asn Met Ala Trp Xaa Leu
                         55
Trp Asp Met Leu Thr His Pro Arg Tyr Gly Met Gly Lys Arg Leu Gly
Ala Ala Asp Val Asp Lys Trp Ala Leu Tyr
                 85
<210> 780
<211> 82
<212> PRT
<213> Homo sapiens
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<222> (25)
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<220>
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<222> (73)
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<400> 780
Val Xaa Arg Ala Ser Asp Asp Ala Glu Gly Tyr Leu Asp Xaa Phe Lys
                                      10
Gly Lys Ile Thr Glu Ser His Leu Xaa Lys Glu Leu Leu Glu Lys Val
Glu Leu Thr Glu Asp Asn Ala Ser Arg Leu Glu Glu Phe Ser Lys Xaa
                             40
Trp Lys Asp Ala Ser Xaa Lys Trp Asn Ala Met Trp Ala Xaa Lys Ile
     50
                         55
Xaa Gln Thr Lys Asp Xaa Lys Arg Xaa Leu Phe Cys Tyr Leu Val Val
                     70
                                         75
Arg Ser
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<210> 781

<211> 49

<212> PRT

<213> Homo sapiens

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<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 781
Pro Asp Phe His Arg Glu Asp Asp Trp Trp Arg Asn Gly Gln Asn Leu
                                     10
Tyr Leu Asp Asn Leu Glu Ala Thr Gly Leu Tyr Gln Val Pro Leu Ser
                                 25
Ala Ala Gln Pro Gly Asp Val Leu Leu Cys Xaa Phe Gly Ser Ser Xaa
Xaa
<210> 782
<211> 85
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (31)
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<400> 782
Xaa Lys Glu Asn Gly Thr Val Thr Ala Ala Asn Ala Ser Thr Leu Asn
                                     10
Asp Gly Ala Ala Ala Leu Val Leu Met Thr Ala Asp Ala Ala Xaa Arg
             20
                                 25
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Leu Asn Val Thr Pro Leu Ala Arg Ile Val Ala Phe Ala Asp Ala Ala
                              40
Val Glu Pro Ile Asp Phe Pro Ile Ala Pro Val Tyr Ala Ala Ser Met
                         55
Val Leu Lys Asp Val Gly Leu Lys Lys Glu Asp Ile Ala Met Trp Glu
Val Asn Gly Ser Leu
<210> 783
<211> 90
<212> PRT
<213> Homo sapiens
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<222> (81)
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<400> 783
Gly Lys Ser Pro Ala Ser Trp Trp Gly Ser Ala Gly His Xaa Xaa Xaa
Pro Cys Arg Gly Ala Cys Ala Ala Ala Gly Xaa Thr Ala Xaa Arg Gly
                                 25
Phe Ala Val Ser Ala Arg Xaa Val Trp Gln Thr Xaa Asp Arg Pro Gly
                             40
Thr Trp Asp Gln Ser Arg Asn Leu Leu Leu Asn Gly Lys Ser Xaa Pro
                         55
Thr Lys Val Arg Leu Ile Trp Gly Gly Ser Leu Pro Pro Val Lys Arg
Xaa Ala Asp Glu Leu Asp Xaa Arg Pro Gly
<210> 784
<211> 84
<212> PRT
<213> Homo sapiens
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<220>

768

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<222> (64)
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 784
Ala Leu Leu Gly Leu Thr Ile Xaa Lys Ala Gly Thr Pro Ala Gly Thr
Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Leu Leu Cys Leu Glu
                                 25
Gly Ile Ile Leu Ser Leu Phe Val Ile Ile Thr Ile Thr Ile Leu Ile
                            40
Asn His Leu Thr Leu Ala Ser Ile Thr Pro Ile Ile Leu Leu Val Xaa
Ala Ala Cys Glu Ala Xaa Leu Gly Leu Ile Pro Phe Ser Tyr Xaa Leu
                                        75
Xaa Tyr Ile Arg
<210> 785
<211> 61
<212> PRT
<213> Homo sapiens
<400> 785
Ile Gly Phe Asp Asn Lys Lys Asp Leu Leu Ile Ser Val Gly Asp Leu
Val Asp Arg Gly Ala Glu Asn Val Glu Cys Leu Glu Leu Ile Thr Phe
```

25

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Pro Trp Phe Arg Ala Val Arg Gly Asn His Glu Gln Met Met Ile Asp
                              40
Gly Leu Ser Glu Arg Gly Asn Val Asn His Trp Leu Leu
                          55
<210> 786
<211> 102
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 786
Gly Leu Gln Pro Tyr Cys Tyr Xaa Thr Trp Arg Cys Arg Cys Thr Thr
                  5
                                     10
Gly Gln Pro Gly Thr Ala Pro Ala Gly Thr Pro Gly Ala Pro Pro Leu
             20
                                 25
```

770

Xaa Gly Met Ala Ile Val Lys Glu Glu Glu Thr Glu Ala Ala Ile Gly 35 Ala Pro Pro Thr Ala Thr Glu Gly Pro Glu Thr Lys Pro Val Leu Xaa 55 Ala Leu Glu Glu Gly Pro Gly Ala Glu Gly Ser Arg Leu Asp Ser Leu Val Ala Xaa Xaa Leu Xaa Leu Glu Val Val Ala Leu Arg Asp Ser Ala 85 90 Pro Val Leu Ala Gly Thr 100 <210> 787 <211> 64 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids · <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <400> 787 Cys Leu Xaa Arg Ala Arg Xaa Pro Ala Ala Ala Asn Ser Ser Gly Asp 5 Gly Gly Ala Ala Gly Asp Gly Thr Val Val Asp Cys Pro Val Cys Lys

Gln Gln Cys Phe Ser Lys Asp Ile Val Glu Asn Xaa Phe Met Arg Xaa 40

Ser Gly Ser Lys Ala Ala Thr Asp Ala Gln Asp Ala Asn Gln Cys Cys 50 60

<210> 788

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 788

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro 1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Leu Glu Arg Gly Arg Lys Trp Lys 35 45

Arg Arg Pro Xaa Leu Thr Gly Asn Ala Asn Leu Gly Lys 50 55 60

<210> 789

<211> 69

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 789

Ala Gln Asp Asn Phe Lys His Leu Asn Gly Ile Xaa Leu Phe His Cys

1 5 10 15

Ile Asp Pro Asn Gly Ser Lys His Lys Arg Thr Asp Arg Ser Ile Leu 20 25 30

```
Cys Cys Leu Arg Lys Gly Glu Ser Gly Gln Ser Trp Gln Gly Leu Thr
         35
                              40
Lys Glu Arg Ala Lys Leu Asn Trp Leu Ser Val Asp Phe Asn Asn Trp
                         55
Glu Arg Leu Gly Arg
<210> 790
<211> 51
<212> PRT
<213> Homo sapiens
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Gln Ser Thr Val Lys Leu Glu His Ala Lys Ser Val Ala Ser Arg Ala
                                     10
Thr Val Leu Gln Lys Xaa Ser Xaa Thr Pro Val Gly Met Phe Leu Lys
Leu Asn Xaa Met Asn Val Lys Phe Xaa Ser Gly Tyr Tyr Glu Leu Pro
                             40
                                                 45
Cys Arg Ser
    50
```

<210> 791 <211> 154 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids <400> 791 Asp Pro Gln Ala His Val Ala Met Leu Ser Ser Thr Ala Met Tyr Ser Ala Pro Gly Arg Asp Leu Gly Met Glu Pro His Arg Ala Ala Gly Pro 25 Leu Gln Leu Arg Phe Ser Pro Tyr Val Phe Asn Gly Gly Thr Ile Leu 40 Ala Ile Ala Gly Glu Asp Phe Ala Ile Val Ala Ser Asp Thr Arg Leu Ser Glu Gly Phe Ser Ile His Thr Arg Asp Ser Pro Lys Xaa Tyr Lys Leu Thr Asp Lys Thr Val Ile Gly Cys Ser Gly Phe His Gly Asp Cys Leu Thr Leu Thr Lys Ile Ile Glu Ala Arg Leu Lys Met Tyr Lys His 105 Ser Asn Asn Lys Ala Met Thr Thr Gly Ala Ile Ala Ala Met Leu Ser 120 Thr Ile Leu Tyr Ser Arg Arg Phe Phe Pro Tyr Tyr Val Tyr Asn Ile 135 Ile Gly Gly Leu Asp Glu Glu Gly Lys Gly 150 <210> 792

<211> 96
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (72)

774

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<223> Xaa equals any of the naturally occurring L-amino acids
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<220>

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<222> (73)

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<220>

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<400> 792

Gly Thr Ala Ser Thr Ala Met Tyr Ser Ala Pro Gly Arg Asp Leu Gly
1 5 10 15

Met Glu Pro His Arg Ala Ala Gly Pro Leu Gln Leu Arg Phe Ser Pro 20 25 30

Tyr Val Phe Asn Gly Gly Thr Ile Leu Ala Ile Ala Gly Glu Asp Phe 35 40 45

Ala Ile Val Ala Ser Asp Thr Arg Leu Ser Glu Gly Phe Ser Ile His
50 60

Thr Arg Asp Ser Pro Lys Cys Xaa Xaa Xaa Asn Arg Gln Asn Ser His 65 70 75 80

Trp Met Gln Arg Phe Ser Trp Arg Leu Ser Tyr Ala Asp Lys Asp Tyr 85 90 95

<210> 793

<211> 72

<212> PRT

<213> Homo sapiens

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 793

Arg Pro Pro Val Arg Xaa Phe Leu Arg Asp Phe Phe Met Ser Met Tyr
1 10 15

Thr Thr Ala Gln Leu Leu Ala Ala Asn Glu Gln Lys Phe Lys Phe Asp

775

20 25 30

Pro Leu Phe Leu Arg Leu Phe Phe Arg Glu Ser Tyr Pro Phe Thr Thr 35 40 45

Glu Glu Ser Leu Ser Leu Thr Asn Ser Gly Thr Gly Lys His Gly Ala
50 55 60

Val Arg Phe Ala Asp Cys Phe Arg 65 70

<210> 794

<211> 124

<212> PRT

<213> Homo sapiens

<400> 794

Gly Ser Gly Asp His Glu Gly Gly Lys Gly Asp Gly Met Glu Glu Val

Pro His Asp Cys Pro Gly Ala Asp Ser Ala Gln Ala Gly Arg Gly Ala
20 25 30

Ser Cys Gln Gly Cys Pro Asn Gln Arg Leu Cys Ala Ser Gly Ala Gly 35 40 45

Ala Thr Pro Asp Thr Ala Ile Glu Glu Ile Lys Glu Lys Met Lys Thr $50 \hspace{1cm} 55 \hspace{1cm} 60$

Val Lys His Lys Ile Leu Val Leu Ser Gly Lys Gly Gly Val Gly Lys 65 70 75 80

Ser Thr Phe Ser Ala His Leu Ala His Gly Leu Ala Glu Asp Glu Asn $85 \hspace{1cm} 90 \hspace{1cm} 95$

Thr Gln Ile Ala Leu Leu Asp Ile Asp Ile Cys Gly Pro Ser Ile Pro 100 105 110

Lys Ile Met Gly Leu Glu Gly Glu Gln Val His Gln 115 120

<210> 795

<211> 144

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778

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Ala Arg Xaa Trp Leu Xaa Gly Val Thr Phe Xaa Val Thr Thr Val Xaa
Thr Lys Xaa Arg Thr Glu Xaa Val Gln Lys Leu Cys Pro Gly Gly Gln
             20
                                 25
Xaa Pro Phe Leu Leu Tyr Xaa Thr Glu Val His Thr Asp Thr Asn Lys
Xaa Ala Glu Phe Leu Xaa Ala Val Leu Cys Pro Pro Arg Tyr Pro Xaa
```

Leu Ala Ala Leu Asn Pro Xaa Ser Asn Thr Ala Xaa Leu Xaa Ile Phe

779

65 70 75 80 Xaa Lys Xaa Ser Ala Tyr Xaa Xaa Xaa Ser Asn Pro Xaa Leu Asn Asp Asn Leu Glu Xaa Gly Leu Leu Lys Ala Leu Xaa Val Leu Xaa Asn Xaa Leu Thr Ser Pro Xaa Ser Glu Glu Val Asp Xaa Thr Ser Ala Xaa Val 120 Lys Val Ser Leu Arg Arg Ser Xaa Trp Ile Ala Arg Ala His Pro Gly 130 135 <210> 796 <211> 97 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <400> 796 Ile Met Lys Asn Gly Phe Tyr Ala Thr Tyr Arg Ser Lys Asn Lys Gly 5 15 10

Lys Asp Lys Arg Ser Ile Asn Leu Ser Val Phe Leu Asn Ser Xaa Leu 20 25 30

Ala Asp Asn His His Leu Gln Val Gly Ser Asn Tyr Leu Tyr Ile His
35 40 45

Lys Ile Asp Gly Lys Thr Phe Leu Phe Thr Lys Thr Asn Asp Lys Ser 50 60

Leu Val Gln Lys Ile Asn Arg Ser Lys Ala Ser Val Glu Asp Ile Lys 65 70 75 80

Asn Ser Leu Val Asp Asp Gly Ile Ile Gly Ile Pro Ile Phe Phe Val 85 90 95

Cys

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<21	<212> PRT														
<213> Homo sapiens															
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<220>															
<221> SITE															
	2> (:														
<22:	3> X	aa e	qual	s an	y of	the	nati	ural	ly o	ccur:	ring	L-ai	nino	acio	ds
<400	0> 79	97													
Arg	Xaa	Xaa	Pro	Ser	Leu	Lys	Gly	Thr	Lys	Ala	Gly	Ala	Pro	Pro	Arg
1				5					10					15	
Cys	Gly	Arg	Ser	Arg	Thr	Ser	Gly	Ser	Pro	Gly	Leu	Gln	Glu	Phe	Gly
			20					25					30		
Thr	Arg		Ser	Arg	Leu	Arg	Lys	Thr	Arg	Lys	Leu	-	Gly	His	Val
		35					40					45			
_			•						_						
Ser		Gly	His	Gly	Arg		Gly	Lys	His	Arg	_	His	Pro	Gly	Gly
	50					55					60				
	۵,				~ 3	_			•	_		_		_	_
	GTÄ	Asn	Ala	GIY	_	Leu	His	His	His	_	He	Asn	Phe	Asp	_
65					70					75					80
T	***	D	C1		DL -	G2	T	*** 1	G1		7	114 -	M	**: -	-
TYL	nis	PIO	GLY	85	Pne	GIÀ	Lys	vai	90	met	гуя	nıs	туг		Leu
				63					90					95	
[.ve	Ara	Asn	Gln	Ser	Phe	Cve	Pro	ሞh r	Va 1	λen	T.eu	Δen	Luc	Lou	Trn
-7-	9	71511	100	001	1	Cys	110	105	V41	AJII	DCG	nsp	110	neu	ııp
								103					110		
Thr	Leu	Val	Ser	G1n	Gln	Thr	Arg	Val	Asn	Ala	Ala	T.vs	Asn	T.ve	Thr
		115					120		•••••	••		125		_,	
Glv	Ala	Ala	Pro	Ile	Tle	Asp	Val	Val	Ara	Ser	Glv	Tvr	Tur	T.ve	Val
,	130					135		Vu	•••		140	-1-	-1-	LJ 3	var
Len	Glv	Lvs	Glv	Lvs	Leu	Pro	Lys	G) n	Pro	Val	Ile	Val	Lve	Ala	Lvs
145	1	-, -	3	-10	150		-10			155			-10		160
. 															
?he	Phe	Ser	Ara	Ara	Ala	Glu	Glu	Lvs	Ile	Lys	Ser	Val	Glv	Glv	Ala
			•	165			_	•	170	•			٠.٠	175	

Cys Val Leu Val Ala 180

<210> 798

<211> 136

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 798

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Arg Lys Glu Gly Trp 1 5 10 15

Arg Glu Glu Lys Gly Pro Phe Cys His Gln Arg Arg Xaa Thr Arg Glu 20 25 30

Tyr Thr Ile Asn Ile His Lys Arg Ile His Gly Val Gly Phe Lys Lys
35 40 45

Arg Ala Pro Arg Ala Leu Lys Glu Ile Arg Lys Phe Ala Met Lys Glu 50 55 60

Met Gly Thr Pro Asp Val Arg Ile Asp Thr Arg Leu Asn Lys Ala Val 65 70 75 80

Trp Ala Lys Gly Ile Arg Asn Val Pro Tyr Arg Ile Arg Val Arg Leu 85 90 95

Ser Arg Lys Arg Asn Glu Asp Glu Asp Ser Pro Asn Lys Leu Tyr Thr 100 105 110

Leu Val Thr Tyr Val Pro Val Thr Thr Phe Lys Ile Ser Val Leu Asn 115 120 125

Ser Val Thr Val Ala Lys Ser Pro 130 135

<210> 799

<211> 142

<212> PRT

<213> Homo sapiens

<400> 799

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ala Ala Leu Ala Ala Cys Ala Ala Met Ala Lys Ile Lys Ala Arg Asp Leu Arg Gly Lys Lys Lys Glu Glu Leu Leu Lys Gln Leu Asp Asp Leu Lys Val Glu Leu Ser 40 Gln Leu Arg Val Ala Lys Val Thr Gly Gly Ala Ala Ser Lys Leu Ser 55 Lys Ile Arg Val Val Arg Lys Ser Ile Ala Arg Val Leu Thr Val Ile Asn Gln Thr Gln Lys Glu Asn Leu Arg Lys Phe Tyr Lys Gly Lys Tyr Lys Pro Leu Asp Leu Arg Pro Lys Lys Thr Arg Ala Met Arg Arg 105 Arg Leu Asn Lys His Glu Glu Asn Leu Lys Thr Lys Lys Gln Gln Arg 120 Lys Glu Arg Leu Tyr Pro Leu Arg Lys Tyr Ala Val Lys Ala 130 135 <210> 800 <211> 74 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

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Xaa Xaa Tyr His Lys Tyr Lys Ala Lys Arg Asn Cys Trp Xaa Xaa Val
                                     10
Arg Gly Val Xaa Met Asn Pro Val Glu His Pro Phe Gly Gly Asn
His Gln His Ile Gly Lys Pro Ser Thr Ile Arg Arg Asp Ala Pro Ala
                             40
                                                 45
Gly Arg Lys Val Gly Leu Ile Ala Ala Xaa Xaa Gly Xaa Leu Xaa
    50
                         55
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Gly Thr Lys Xaa Val Gln Glu Lys Glu Asn
65 70

<210> 801
<211> 100
<212> PRT
<213> Homo sapiens

<220>
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 801
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Trp Gly Thr Ala Val Ala Ser Ala Arg Phe Arg Gln Trp His Pro Gly 20 25 30

Met Thr Pro Val Gln Arg Gly Gly Pro Gly Ala Xaa Val Ala Leu Gly

Pro Gly Ser Arg Pro Trp Thr Gly Pro Gly Pro Arg Pro Arg Thr Arg 35 40 45

Xaa Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr Lys Leu Gly 50 60

Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu Ile Tyr Leu 65 70 75 80

Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Ser Ser Trp Gly
85 90 95

Leu Ser Gln Gly 100

<210> 802

<211> 19

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 802
Xaa Glu Thr Gln Ala Ile Val Cys Gln Gln Leu Asp Leu Thr His Leu
                                     10
                  5
Lys Gly Ala
<210> 803
<211> 54
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 803
Gly Thr Arg Asp Val Arg Arg Val Pro Gly Val Ala Pro Thr Leu Val
Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr
             20
Pro Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu Gln Met His
                             40
Ser Arg Xaa Ala His Trp
     50
<210> 804
<211> 140
<212> PRT
<213> Homo sapiens
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WO 00/55173

<210> 805 <211> 130 <212> PRT

<213> Homo sapiens

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<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (136)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 804
Phe Lys Ser Tyr Leu Gly Asp Thr Ile Glu Gly Ser Leu Gln Val Thr
                  5
Gly Pro Glu Ile Pro Gly Ser Thr His Ala Ser Ala Glu Ser Leu Ser
Arg Arg Lys Leu Asp Thr Gly Thr Gly Ser Ala Met Arg Leu Leu Pro
Arg Leu Leu Leu Leu Leu Leu Val Phe Pro Ala Thr Val Leu Phe
                        55
Arg Gly Gly Pro Arg Gly Leu Leu Ala Val Ala Gln Asp Leu Thr Glu
                    70
Asp Glu Glu Thr Val Glu Asp Ser Ile Ile Glu Asp Glu Asp Asp Glu
                 85
                                     90
Ala Xaa Val Glu Glu Asp Glu Xaa Thr Asp Phe Val Glu Asp Lys Glu
Glu Glu Asp Val Ser Gly Glu Xaa Glu Thr Leu Pro Ser Ala Asp Thr
                            120
Thr Ile Leu Phe Leu Lys Xaa Xaa Ile Phe Arg Gln
   130
                     135
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787

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<220>
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Phe Glu Ala Asn Arg Gln Arg Ala Thr Met Ala Val Ala Arg Ala Ala
Leu Gly Pro Leu Val Thr Gly Leu Tyr Asp Val Gln Ala Phe Lys Phe
Gly Asp Phe Val Leu Lys Ser Gly Leu Ser Ser Pro Ile Tyr Ile Asp
                             40
                                                 45
Leu Arg Gly Ile Val Ser Arg Pro Arg Leu Leu Ser Gln Val Ala Asp
Ile Leu Phe Gln Thr Ala Gln Asn Ala Gly Ile Ser Phe Asp Thr Val
                   70
                                         75
Cys Gly Val Pro Tyr Thr Ala Leu Pro Leu Ala Thr Val Ile Cys Ser
                 85
Thr Asn Gln Ile Pro Met Leu Ile Xaa Arg Lys Glu Thr Lys Asp Tyr
                                105
Gly Thr Lys Arg Leu Val Xaa Xaa Ile Leu Ile Xaa Xaa Lys Leu Phe
                            120
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Asn His

788

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<210> 806
<211> 35
<212> PRT
<213> Homo sapiens
<400> 806
Val Ala Asp Ile Ala Trp Trp Phe Arg Arg Ile Phe Ile Ala Val
                                     10
Leu Arg Cys Asn Ser Ser Ile Ser Asp Ala Glu Ser Met Met Ser Ala
                                25
            20
Ile Phe His
<210> 807
<211> 72
<212> PRT
<213> Homo sapiens
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789

<220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (65) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (67) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <400> 807 Asp Trp Arg Gln Thr Ser Xaa Ser Gly Ala His Gly Arg Leu Lys Pro Trp Xaa Asn Pro Xaa Ala Arg Arg Asp Ala Arg Glu Asp Arg Ala Thr Trp Lys Ser Asn Tyr Xaa Leu Lys Ile Xaa Gln Arg Ile Gly Met Ile 40 Ile Leu Lys Trp Val Xaa Leu Val Gly Ser Glu Tyr Xaa Met Val Gly Xaa Pro Xaa Xaa Ser Met Ala Ser 65 70 <210> 808 <211> 53 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30)

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<223> Xaa equals any of the naturally occurring L-amino acids
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Pro Ser Leu Lys Gly Thr Lys Ala Gly Asn Asp Leu Val Ser Leu Arg
Ala Ala Arg Thr Leu Arg Pro Pro Gly Thr Lys Pro Gly Xaa Gly Ala
             20
                                  25
Thr Phe Gly Pro Gly Leu Ser Glu Arg Ala Ser Ala Gln Arg Gly Ser
Gly Gln Leu Xaa His
     50
<210> 809
<211> 70
<212> PRT
<213> Homo sapiens
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<222> (16)
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<222> (23)
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<222> (35)
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
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<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Xaa Glu Tyr Thr Leu Arg Thr Ser Gly Leu Thr Val Arg Pro Xaa
                  5
                                     10
Thr Ser Gly Pro Gly Cys Xaa Cys Gln Gly Gly Leu Ser Asp Leu Arg
Met Gly Xaa Met Glu Trp Xaa Arg Arg Asp Ala Gly Val Xaa Ala Gly
                             40
Xaa Asp Arg Ser Xaa Thr His Glu Cys Gln Val Gln Val Val Arg Val
     50
Gly Asp Met Ser Leu Glu
 65
<210> 810
<211> 39
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
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<222> (4)
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 810
Xaa Ile Xaa Xaa Cys Gly Phe Glu Pro Pro His Phe Leu Thr Leu Asn
                                      10
Leu Xaa Met His Arg Xaa Ser Cys Pro Leu Asp Cys Lys Val Tyr Val
             20
                                  25
Gly Ile Leu Gly Thr Met Xaa
         35
<210> 811
<211> 27
<212> PRT
<213> Homo sapiens
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<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 811
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5 10 1 Lys Lys Lys Lys Xaa Pro Xaa Xaa Gly Pro 20 <210> 812 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (21) <223> Xaa equals any of the naturally occurring L-amino acids Arg Arg Arg Xaa Arg Pro Ala Pro Pro Pro Gly Ala Cys Leu His Leu 5 Arg Leu Pro Lys Xaa Leu Gly Gln Arg Leu Asp Ala Arg His Gln Gly Pro Val Glu Val Leu Gln Glu Glu Arg Arg Pro Arg Pro Arg Leu Pro 35 40 45 Arg Pro Ala Leu Ala Thr Leu Ser Ala Arg Phe Thr Asn Lys Leu Ser Asp Pro Lys Lys Lys Lys Lys <210> 813 <211> 27 <212> PRT <213> Homo sapiens <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (4)

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<220>
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<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
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Asn Ser Ala Xaa Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys
1 5 10
Lys Lys Lys Lys Lys Lys Lys Lys Lys
           20
<210> 814
<211> 23
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 814
10
Lys Lys Lys Lys Lys Xaa
          20
<210> 815
<211> 46
<212> PRT
<213> Homo sapiens
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<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (24)
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PCT/US00/05881

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Ala Ser Xaa Ser Pro Pro Lys Xaa Ile Thr Asn Cys Ile Tyr Xaa Lys
             20
                                 25
Ile Asn Arg Tyr Xaa Xaa Leu Asn Ile Ala Ile Gln Ile Xaa
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                             40
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Asn Ser Ala Xaa Leu Lys Gln Thr Gly Leu Lys Gly Val Thr Phe Asn
Lys Arg Met Lys Met Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys
             20
                                 25
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Lys Lys Lys Lys Lys Lys Xaa Pro Gly Gly Xaa Pro Pro Pro
                             40
Pro Xaa Pro Pro
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800

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<213> Homo sapiens
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Gln Thr Thr Arg Gln Leu Leu Lys Pro Ala Ile His Val Tyr Phe Asn
            20
Lys Lys Lys Lys Xaa Xaa Gly Gly Pro Pro Pro Pro
    50
<210> 820
<211> 40
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<213> Homo sapiens
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Asp His Thr Ser Asp Thr Xaa Ala Trp Val Thr Glu Arg Asp Ser Val
                  5
Xaa Gly Lys Glu Lys Lys Lys Lys Xaa Xaa Gly Gly Ala Pro Val
                                 25
Pro Asn Trp Pro Tyr Xaa Gly Ser
<210> 821
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<212> PRT
<213> Homo sapiens
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<400> 821
Ala Xaa Pro Thr Gln Gln Ser Phe Pro Gln Leu Pro Arg Arg Lys Gly
                                     10
                                                         15
Pro Ser Trp Val Trp Asp His Lys Gly Gly Asp Cys Thr Pro Leu Pro
                                 25
Leu Gly Pro Gly Cys Gly Gln Arg Pro Pro Cys Val Ser Arg Val Thr
        35
                             40
                                                 45
Val Pro Leu Ser Cys Asp Ala Ile Ser Val Cys Ala Trp Ser Pro Gln
                         55
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<210> 822

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<211> 61
<212> PRT
<213> Homo sapiens
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<221> SITE
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<400> 822
His Leu Cys Phe Lys Trp Gly Ser Pro Cys Arg Gly Phe Ile Gly His
Trp Leu Ser Lys Cys Gln Xaa Trp Ala Gly Gly Thr Glu Pro Pro
            20
                                 25
Gln His Cys Ala Leu Val Glu Lys Ala Leu Thr Cys His Ala Pro Leu
                             40
Lys Pro Pro Leu Leu Thr Cys Leu Leu His Pro Ser His
                         55
<210> 823
<211> 73
<212> PRT
<213> Homo sapiens
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804

Thr Thr His Leu Pro Asn Gln Leu Ala Leu Lys Met Asp Gly Ala Gly
20
25
30

Ala Ser Gly Pro Tyr Pro Ser Val Ala Gly Ser Arg Glu Trp Thr Gly
35
40
45

Xaa Ala Gly Ala Ala Arg Ala Arg Xaa Val Met Val Cys Val Gly Gly 50 60

Arg Arg Arg Arg Gly Cys Xaa Val

<210> 824

<211> 34

<212> PRT

<213> Homo sapiens

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<400> 824

Pro Arg Xaa Arg Arg Gln Gln Gln Pro His His Xaa Val Ala Asp Gly
1 5 10 15

Pro His Ala Gly Gly Pro Leu Pro Ala Leu Xaa Arg Arg Leu Xaa Leu 20 25 30

Pro Leu

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<211> 21
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<222> (19)
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Pro Tyr Ser Glu Ser Xaa Xaa Asn Ser Leu Ala Val Val Leu Gln Arg
                  5
                                     10
Arg Asp Xaa Glu Asn
             20
<210> 826
<211> 56
<212> PRT
<213> Homo sapiens
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<222> (56)
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                                     10
Pro Ser His Gln Met Phe Val Asp Phe Ile Arg Ile Phe Lys Leu Pro
                                 25
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Leu Leu Ser Cys Thr Tyr Phe Xaa
     50 .. 55
<210> 827
<211> 54
<212> PRT
<213> Homo sapiens
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Asn Ser Lys Xaa Ile Thr Ile Lys Lys Ala Gly Thr Pro Ala Gly Thr
                 5
                                    10
Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Thr Ala Ala Arg Arg
Arg Gln Lys Gly Thr Ala Ala Arg Xaa Arg Gln Lys Gly Ala Xaa Glu
Arg Arg Gln Lys Gly
    50
<210> 828
<211> 78
<212> PRT
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<213> Homo sapiens

Ser Ala Glu Glu Lys Lys Leu Thr Arg Ile Pro Ser Val Thr Ala Ser

Glu Gln Gly Arg Ala Gln Arg Arg Ile Pro Ala Pro Arg Arg Gly Ala 25

Gly His Val Ala Tyr Gly Arg Pro Ala Pro Arg Arg Arg Ser Trp Gly 40

Ala Gln Val Leu Leu Ile Glu Ala Gln Pro Val Asp Gly Val Arg Pro 50

Val Ala Ala Pro Gly Ala Pro Gly Pro Gly Leu Pro Gly Val Gly Leu 75

Leu Gly Asn Ala Ala Gln Ser Gly Trp

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Val Pro Ser His Ser Glu Asp Ala Leu Arg Thr Leu Gln Ile Leu Leu
                                  25
Pro Tyr Ile Thr Leu Asn Ser Gly Leu Arg Xaa
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<211> 110
<212> PRT
<213> Homo sapiens
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Ile Thr Val Lys Gly Gln Arg Leu Arg Ser Ala Lys Gly Gly Ala
Gln Xaa Arg Ser Thr Thr Asp Glu Ala Thr Ala Ser Ile Cys Pro Leu
         35
                             40
Pro Val Glu Pro Tyr Arg Gln His Leu Ile Leu Thr Ala Thr Cys Asp
                         55
Asn Xaa Gln Glu Val Leu Pro Ile Leu Pro Thr Arg Ala Ala Ser Leu
                    70
Gly Asp Leu Cys Val Pro Xaa Phe Xaa Val Cys Leu Gly Asp Arg Val
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Trp Xaa Xaa Leu Gly Arg Xaa Arg Val His Gly Gly Asp Ser
            100
                               105
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<212> PRT
<213> Homo sapiens
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Val Gln Phe Xaa Thr Ile Leu Ser Ala Pro Ser Gly Ser Leu Ala His
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810

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Xaa Thr Thr Leu Gly Gly Arg Ser Thr Gly Leu Val Ile Glu Leu Xaa

Leu Xaa Arg Leu Leu Xaa Cys Xaa Met Asn Cys Asn Ile Cys Leu 40

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<400> 834

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Ala Ala Arg Arg Xaa Gln Lys Gly Thr Ala Ala Arg Arg Arg Gln Lys

Gly Thr Ala Ala Arg Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg Arg

Gln Lys Val Arg Leu Arg Glu Asp Asp Arg Arg Ile Arg Leu Arg Glu 50

Asp Asp Arg Arg Glu Asn Leu Ser Ser Thr Leu Asn Leu Pro Thr Glu 70

Pro Ser Lys Ser Pro Cys Lys Phe Asn Cys 85 90

<213> Homo sapiens

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<210> 835
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                  5 .
                                     10
                                                         15
Gly Ser Leu Cys Cys Leu Tyr Cys Ile Asp Leu Xaa Tyr Arg Cys Leu
             20
Phe Ile Lys Lys Ile Gln Lys Kaa Lys Lys Ile Asn Lys Xaa
Lys Lys Xaa
     50
<210> 836
<211> 47
<212> PRT
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Leu Asn Thr Ile Lys Thr Ala Phe Phe Phe Pro Ala Ser Ile Gln Pro
Thr Trp Phe Cys Phe Asn Lys Ser Leu Glu Lys Leu Ile Xaa Xaa
         35
                             40
<210> 837
<211> 733
<212> DNA
<213> Homo sapiens
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aattogaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga 120
teteceggae teetgaggte acatgegtgg tggtggaegt aagecaegaa gaecetgagg 180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
aggageagta caacageacg taccgtgtgg teagegteet caccgteetg caccaggact 300
ggctgaatgg caaggagtac aagtgcaagg tetecaacaa ageceteeca acceecateg 360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540
ccacqcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg 600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660
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<212> PRT
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<220>

<213> Homo sapiens

814 '

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<212> DNA
<213> Homo sapiens
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cccgaaatat ctgccatctc aattag
<210> 840
<211> 27
<212> DNA
<213> Homo sapiens
<400> 840
gcggcaagct ttttgcaaag cctaggc
                                                                   27
<210> 841
<211> 271
<212> DNA
<213> Homo sapiens
<400> 841
ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60
aaatatetge cateteaatt agteageaac catagteeeg cecetaacte egeceateee 120
gcccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa tttttttat 180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240
ttttggaggc ctaggctttt gcaaaaagct t
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<400> 843 gcgaagcttc	gcgactcccc	ggatccgcct	С			31
<210> 844 <211> 12 <212> DNA						
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<400> 844 ggggactttc	cc					12
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
<210> 845 <211> 73 <212> DNA <213> Homo	sapiens					
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ccatctcaat	tag					73
<210> 846 <211> 256 <212> DNA <213> Homo	sapiens					
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					taactccgcc	
					cagaggccga	
cttttgcaaa		tatteeagaa	gcagtgagga	ggettttttg	gaggcctagg	256
y-uaa						

International application No. PCT/US00/05881

A. CLASSIFICATION OF SUBJECT MATTER IPC(7): C07H 21/04; C07K 5/04, 16/00; G01N 33/53 US CL: 536/23.1; 530/300, 387.9; 436/501 According to International Patent Classification (IPC) or to both national classification and IPC							
B. FIEI	DS SEARCHED						
Minimum documentation searched (classification system followed by classification symbols)							
U.S. : 536/23.1; 530/300, 387.9; 436/501							
Documentat	tion searched other than minimum documentation to the	e extent that such documents are included	in the fields searched				
Electronic d	lata base consulted during the international search (na	ame of data base and, where practicable	, search terms used)				
East, GenEmbl, EST, GeneSeq, PIR-63, SwissProt, SPTREMBL, Issued patents sequence database: SEQ ID NO:1 and monoamine adj oxidase							
C. DOC	UMENTS CONSIDERED TO BE RELEVANT						
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.				
X 	ZHU et al. Promoter organization and activity of human monoamine oxidase (MOA) A and B genes. J. Nuerosci. November 1992, Vol. 12, No. 11, pages 4437-4446, especially pages 4438-4439.		1-12, 14-16, 20- 23				
Y	voi. 12, No. 11, pages 4437-4440, es	pecially pages 4436-4439.	13, 17-19				
x	CHEN et al. The deduced amino acid	1-7, 11-12					
	and frontal cortex monoamine oxid						
Y	Neurochem. July 1993, Vol. 61, No. pages 188-190.	19					
x	GRIMSBY et al. Human monoamine o	oxidase A and B genes exhibit	1-12, 20-21 and				
	identical exon-intron organization. Pr		23				
Y	May 1991, Vol. 88, pages 3637-3641,						
			17-19				
	·						
X Furth	ner documents are listed in the continuation of Box C	. See patent family annex.					
•	ecial categories of cited documents:	"I" later document published after the int date and not in conflict with the app	lication but cited to understand				
A do	cument defining the general state of the art which is not considered be of particular relevance	the principle or theory underlying th "X" document of particular relevance; th					
	rlier document published on or after the international filing data cument which may throw doubts on priority claim(s) or which is	considered novel or cannot be considered when the document is taken alone					
cit	ed to establish the publication date of another citation or other ecial reason (as specified)	"Y" document of particular relevance; the					
O do	scument referring to an oral disclosure, use, exhibition or other	considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art					
	cument published prior to the international filing date but later than e priority date claimed	"&" document member of the same patent family					
Date of the	actual completion of the international search	Date of mailing of the international search report					
01 JUNE	2000	05 JUL 2000					
	mailing address of the ISA/US		OYCE BRIDGERS				
Commissioner of Patents and Trademarks Box PCT Workington D.C. 20021		MARJORIE MORAN PARALEGAL SPECIALIST CHEMICAL MATRIX					
Washington, D.C. 20231 Facsimile No. (703) 305-3230		Telephone No. (703) 308-1235	MS F				

International application No.
PCT/US00/05881

C (Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X Y	BACH et al. cDNA cloning of human liver monoamine oxidase A and B: Molecular basis of differences in enzymatic properties. Proc. Natl. Acad. Sci., USA. July 1988, Vol. 85, pages 4934-4938, especially pages 4935-4936.	1-16, 20-23 17-19
Y	US 5,783,680 A (BRUNNER et al.) 21 July 1998, columns 5-15.	13, 17-19
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International application No. PCT/US00/05881

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
Please See Extra Sheet.
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchabl claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite paymer of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report cover only those claims for which fees were paid, specifically claims Nos.:
4. X No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-23, SEQ ID NO:1
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

International application No. PCT/US00/05881

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s)1-10 and 21, drawn to isolated nucleic acid sequences, a gene, a recombinant vector and host cells comprising the sequences.

Group II, claim(s) 11-12 and 14, drawn to an isolated polypeptide and a recombinant host cell expressing the polypeptide.

Group III, claim(s) 13, drawn to an antibody.

Group IV, claim(s)15-16, drawn to a method of making a polypeptide and the polypeptide made.

Group V, claim(s) 17, drawn to a method of preventing, treating, or ameliorating a medical condition by administering a polypeptide or a polynucleotide.

Group VI, claim(s) 18, drawn to a method of diagnosis using a polynucleotide.

Group VII, claim(s) 19, drawn to a method of diagnosis using a polypeptide.

Group VIII, claim(s) 20 and 23, drawn to a method of identifying a binding partner to a polypeptide.

Group IX, claim(s) 22, drawn to a method of identifying biological activity.

In addition, each isolated nucleic acid represented by SEQ ID NO: X is a separate product, not necessarily related to any other nucleic acid represented by SEQ ID NO: X. Each polypeptide is likewise considered a separate product, not necessarily related to any other polypeptide sequence, or to any nucleotide sequence. Applicant is required to elect either ten nucleic acid sequences or one polypeptide sequence for search.

The inventions listed as Groups I-IX do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: every nucleic acid sequence claimed is not unique (SEQ ID NO: 1 is not unique, see the Search report), and therefore does not represent a special technical feature. As the nucleic acid would be the "linking" feature, and the nucleic acid is not a special technical feature, the claims do not relate to a single inventive concept. Because there is no single inventive concept, a method of use is not included with the nucleic acids of Group I.

Although unity of invention is lacking for Groups I-IX, as previously set forth, no invitation to pay for a search for extra groups has been made. However, unity of invention is also lacking with regard to sequences and applicant was invited to pay for a search for additional groups of sequences. Applicant elected only SEQ ID NO:1, therefore no extra search fees are due.